65TH CONGRESS
2d Session
HOUSE OF REPRESENTATIVES
DOCUMENT
No. 582

REPORT

OF THE

COMMISSIONER OF EDUCATION

FOR

THE YEAR ENDED JUNE 30, 1917

VOLUME I

WASHINGTON
GOVERNMENT PRINTING OFFICE
1917

THE UNITED STATES

BUREAU OF EDUCATION.

Created as a Department March 2, 1867.

Made an office of the Interior Department July 1, 1869.

COMMISSIONERS.

HENRY BARNARD, LL. D.,
March 14, 1867, to March 15, 1870.

JOHN EATON, PH. D., LL. D.,
March 16, 1870, to August 5, 1886.

NATHANIEL H. R. DAWSON, L. H. D.,
August 6, 1886, to September 3, 1889.

WILLIAM T. HARRIS, PH. D., LL. D.,
September 12, 1889, to June 30, 1906.

ELMER ELLSWORTH BROWN, PH. D., LL. D.,
July 1, 1906, to June 30, 1911.

PHILANDER PRIESTLEY CLAXTON, LITT. D., LL. D.,
July 8, 1911, to date.

CONTENTS.

REPORT OF THE COMMISSIONER OF EDUCATION.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, October 13, 1917.

SIR: The act creating the Bureau [Department] of Education provides that:

> It shall be the duty of the Commissioner of Education to present annually to Congress a report embodying the results of his investigations and labors, together with a statement of such facts and recommendations as will, in his judgment, subserve the purpose for which this department is established.

From 1867 to 1889 (except in 1869 when no report was issued) the annual reports of the commissioner were issued in one volume. Since 1889 they have been issued in two volumes. Prior to 1906 the annual reports were the only publications of the bureau except certain very valuable circulars of information and occasional leaflets and administrative documents. Since 1906 a large part of the results of the studies and investigations of the bureau have been published in the form of bulletins, the annual issue of which has increased from 3 in 1906 to 50 in 1916, and in leaflets and multigraphed letters, the number of which has increased greatly in recent years. The publication of the bulletins has made it possible to reduce the size of the volumes of the reports and to make their contents more homogeneous. Beginning with the report for 1913, it has been the policy of the commissioner to make Volume I of the report for each year a comprehensive interpretative review of the more important phases of the progress of education in the United States and all other countries, and Volume II a statistical summary of the schools and other educational agencies of the United States. The experience of four years has shown very cleraly that such a review and such a summary can be made more effectively for biennial than for annual periods. Inquiries among education officers and others directly interested in these reports have confirmed the belief that such a biennial survey will be more acceptable to most of these, first, because it can be made more comprehensive and accurate, and, second, because it will relieve them of the burden of making annual statistical reports to the bureau. It has therefore been decided that beginning with the fiscal year 1919 such a biennial summary will be issued as an administrative document.

The annual report of the commissioner required by law can then be made to correspond more closely to the original intent of the report by including only brief and concise summaries of the activities of the bureau, the results of its investigations and the conclusions based on them, and recommendations for the improvement of systems of education in the several States. It is believed that this can be done most effectively in from 100 to 150 pages, and this will be the form of the annual report in the future. The first volume of the present report marks the transition stage from the practice of the past four years to the new policy.

For reasons given in my letter transmitting the manuscript for Volume I of the report of the Commissioner of Education for the fiscal year ending June 30, 1915, and restated in my letter transmitting Volume II of the report of 1916, the material contained in Volume II of the report for 1917, transmitted herewith, properly belongs to the report for 1916, just as the statistical volume of that report properly belonged to the report for 1915.

The new policy will make it possible to cover the same period in both the interpretative review and the statistical summary of each biennial survey.

Respectfully submitted.

P. P. CLAXTON,
Commissioner.

The SECRETARY OF THE INTERIOR.

I.

EDUCATION AND THE WAR.

The war is the outstanding fact for education, as for every other department of life in 1917. With the entrance of the United States into the conflict, and the necessary mobilization of the military, industrial, and intellectual resources of the Nation, education as a national concern has assumed a significance hitherto unrealized, and the task of the Bureau of Education as the national agency for education has become greater and more definite than at any time since its creation, half a century ago.

MOBILIZING THE INTELLECTUAL RESOURCES OF THE NATION.

One of the first steps taken by the bureau after the declaration of war was to aid in marshaling the intellectual resources of the Nation. Colleges, universities, and other educational institutions were eager to do their part, but few of them knew how to proceed. Columbia University had worked out a service blank which proved to be unusually effective in cataloguing the resources represented by its faculty, graduates, and students. The bureau reprinted this blank and sent it, under registered mail, to other colleges and universities, in order that the successful experience of one institution might be effectually made known to all. Through use of this and similar blanks the colleges and universities were enabled—

(1) To make a personnel index of the entire university body.

(2) To perfect an internal organization into larger and smaller subdivisions which should operate autonomously and in coordination with one another.

(3) To establish cooperative relations with governmental agencies of the Nation, the State, and city for patriotic service.

Conferences on higher education and the war.—A second movement affecting particularly the higher educational institutions of the country developed as an outside interest, but soon found important contacts with the Bureau of Education. On May 3, 1917, the Committee on Science, Engineering, and Education of the Advisory Commission of the Council of National Defense held a conference at Washington in which were represented such organizations as the National Association of State Universities, the Association of American Agricultural Colleges and Experiment Stations, the Association of American Universities, the Association of American Colleges, the Society for the Promotion of Engineering Education, and a number of institu-

tions not affiliated with any of these associations. This conference proposed to establish a medium of communication between the higher institutions and the departments of the Government charged with the conduct of the war. It likewise proposed to indicate what should be the general policy to be pursued by the colleges and universities with regard to "(*a*) immediate utilization of their resources for the Government service, (*b*) possible modifications of curricula to fulfill the need for men trained in the technical branches and in military science, (*c*) maintaining and improving institutions of higher education for the training of the youth of the Nation to meet the more difficult conditions of living which will follow the war."

As a result of this conference a statement of principles was prepared and distributed by the Bureau of Education to colleges and universities. This statement of principles suggested that colleges and universities should so organize their work as to be of the greatest possible usefulness to the country in its present crisis; that all young men below the age of liability to the selective draft and those not recommended for special service who could avail themselves of the opportunities offered by the colleges should be urged to do so; that the colleges consider the advisability of dividing the academic year into four quarters, approximately 12 weeks each, and that, where necessary, courses be repeated at least once a year, so that the college course might be best adapted to the needs of food production; that in view of the supreme importance of applied science in the present war, students pursuing technical courses such as medicine, agriculture, and engineering, should be considered as rendering services more valuable than if they were to enroll at once in the military or naval service; that the Government should provide or encourage military training for all young men in college and that the colleges should include teaching in military science. It was further stated to be the judgment of the conference that the Bureau of Education of the Department of the Interior and the States Relations Service of the Department of Agriculture, with the cooperation of the Committee on Science, Engineering, and Education of the Advisory Commission of the Council of National Defense, should be the medium of communication between the Federal departments and the higher educational institutions of the country. Finally, the conference expressed its conviction "that an educational responsibility rests on the institutions of higher learning to disseminate correct information concerning the issues involved in the war and to interpret its meaning." Meetings of the section developing out of this conference were held on May 6, 16, and 26, chiefly to discuss changes in college curricula for adaptation to the needs of the war. One meeting was devoted to the part the secondary schools should take in the preparation for war. A most important conference was that held July 3 and 4,

in which Canadian educators related their experience in connection with the war and rendered helpful advice to American educators face to face with similar problems. Reports of these conferences were distributed by the Bureau of Education to universities and colleges and secondary schools.

The work of the engineering schools.—A still further development of the work of the Advisory Commission of the Council of National Defense was a study of the relation of engineering schools to the National Government during the war. In accordance with a resolution of the institutional delegates at a meeting of the Society for the Promotion of Engineering Education held in Washington July 7- a committee was appointed for consultation with the heads of the various bureaus, departments, and divisions of the Department of War and the Department of the Navy. It rendered a preliminary report as to the probable need of scientifically and technically trained men in connection with the military operations. This committee recommended that an engineer familiar with the equipment and capacity of the higher technical institutions of the country be commissioned in the Army and assigned the task of coordinating the needs of the Army for technically trained men with existing facilities. The committee also recommended to the Secretary of War that students and alumni of technical institutions who are drafted into the National Army be assigned to branches in the service to which their special technical training fits them. The committee recommended to engineering schools the introduction of certain military engineering topics into the curriculum, such as military bridge building, the laying out and sanitation of camps, the making and reading of maps, rapid reconnaissance, and the laying out of trenches.

Reports received from colleges and universities show that six different types of special service are being rendered for the Nation. These comprise: (1) Special courses for regular students, introduced as a result of the war; (2) special extension courses; (3) new schools or courses established for the benefit of the military or naval service directly; (4) extra academic service of students and professors; (5) changes in college calendars; (6) utilization by the Government of research laboratories and of professors in an expert capacity.

SCHOOL CHILDREN AND CROP PRODUCTION.

Home gardening directed by the school.—The exigencies of war gave point to many demands of the Bureau of Education and educators everywhere that had hitherto been considered academic. For years school men and economists have preached home and school gardening, and a considerable part of the efforts of the Bureau of Education during recent years have been devoted to the promotion

of home gardening for town children directed by the school, Congress having made a small appropriation for this purpose in 1914. What had been a valuable but more or less theoretical proposal became, under pressure of war, an immediate national necessity. The bureau's efforts were necessarily confined to reaching school officials with the plea for stimulated production through the help of the school. On April 18 the Commissioner of Education addressed the following letter to secretaries of school boards in every city and town of more than 2,500 population in the United States:

DEAR SIR: As a result of the waste of nearly three years of war, and of the decreased production of these years throughout the world, the supply of food for the world as compared with the demand is less than it has been for more than half a century, and food prices in this country are higher than they have been since the War between the States. As a result of the entering of the United States into the world war, many hundreds of thousands of men will be drawn into the Army and the Navy, and hundreds of thousands more will be employed in munition plants and in other industries directly connected with military preparation. Yet, from our fields and orchards and gardens we must feed and clothe our hundred million men, women, and children, supply our armies, and feed a large part of the population of Europe, where the draft from the farms has been much larger and the need is far greater than here.

Some weeks ago, I called attention to the fact that, under proper direction and with proper assistance, schoolboys and girls in the cities, towns, villages, suburban and manufacturing communities of the United States might easily produce in the gardens and back yards of their homes and on available vacant lots three or four hundred million dollars worth of vegetables and fruits annually, while at the same time they would gain physical health and strength and much of educational value. At the same time I stated that if the five or six millions of older boys and girls and adult men and women for whom an hour or two of outdoor work each day would be valuable for recreation and for rest from the routine of their daily labor in office and shop and mill and mine could also be interested in this work, the total value of the products might be increased to more than three-quarters of a billion dollars a year. Being produced at home for immediate family use, there would be no cost for transportation or handling, and a minimum of waste through deterioration and temporary glutting of local markets.

The declaration of war with Germany has stimulated great interest in this subject in all parts of the country. But children and untrained older people, however industrious they may be, can not be expected to accomplish much without constant industry and knowledge of soils, fertilizers, tillage, and proper selection of varieties of vegetables.

I therefore appeal once more to school boards everywhere to provide for such work by employing through the entire spring, summer, and fall at least one garden teacher or director for every 100 children between the ages of 9 and 15 for whom land can be found and who can be induced to spend two or three hours a day in gardening. I also appeal to all principals and teachers who have any practical knowledge of gardening to volunteer their services freely or for the smallest possible salary for which they can afford to work. In this way, probably more effectively than in any other, can they serve their country just now. The experience will have value for the teachers themselves, since there will be a permanent demand for directors of work of this kind at reasonably good salaries.

In most cases it will be found helpful and economical to engage the assistance of a practical gardener who can give help in the heavier work which children can not do.

In doing this work, neither teacher nor children need lose time from school. In the spring and fall the work can be done evenings and mornings, before and after school hours, and on Saturdays; more time can be given in vacation months. For best results gardens should be cultivated throughout the summer and as late in the fall as anything can be grown in them. Wherever possible, gardens should be irrigated when weather conditions require it.

If this work is to be done at all this year, it must be begun at once. The season is already well advanced, especially in the South. The Bureau of Education will assist as it can by general direction from its division of school and home gardening, and the Department of Agriculture will send bulletins and other helpful printed matter.

If funds for necessary expenses can not be had otherwise, children who receive instruction, or their parents, might well pay into a general fund 10 or 20 per cent of the value of vegetables grown. Even if 20 per cent should be paid, this is much less than the charges made by middlemen for handling green groceries. Local bankers and others interested might well afford to advance garden associations the funds needed for immediate expenses.

Yours, sincerely,

P. P. CLAXTON, *Commissioner*

A number of other letters followed; one to colleges, universities, and normal schools, calling attention to the examples set by such institutions as the University of Indiana and the Milledgeville (Ga.) Normal School, in utilizing available college land for cultivation of potatoes and other crops, and in making it possible for students of both sexes to take an immediate part in the work of increased production; another letter to principals of high schools where agriculture is taught, pointing out the special opportunity afforded these schools in the present emergency to demonstrate the value of a course in agriculture; and still another circular letter addressed to teachers and children in the schools of the Southern States, emphasizing the importance of the work southern school children could do in growing large quantities of beans, peanuts, and other foods that may be kept without canning.

The bureau's policy.—Without attempting to detail the enormous spread of the home-garden movement through the efforts of the Department of Agriculture, the Food Administration, and numerous State, private, and local agencies, it may be pointed out that the bureau's special task was to enlist school officers in this important work, to lend for this purpose its machinery for reaching the schools, which has been brought to the point of real efficiency in recent years, to suggest methods and sources of information for teachers, and in general to indicate policies and furnish guidance rather than to carry on the actual work of instruction.

Even if this were not a definitely adopted Federal policy, the meager appropriations made by Congress for the bureau would render anything else impossible. Indeed, with its present support the bureau has rarely been able to carry any movement through to its logical conclusion. Educational follow-up is especially important in the

gardening movement at the present time. Under the stimulus of the national movement a vast army of city dwellers, both adults and children, have attempted small-lot gardening. There have been many failures. Unless the problem is treated as an educational one to be followed up systematically for succeeding years, there is grave danger that many amateur gardeners, disgusted with the poor results, will abandon the work, retaining a settled prejudice against it, and the whole movement will lapse into the condition it was in before the war. Economic as well as educational considerations demand that gardening be thoroughly and practically taught to all children through the medium of the public school.

Wherever the bureau's special plan of school-directed home gardens has had a fair trial it has succeeded beyond the highest expectations. Thirty-four city-school superintendents have reported a total of 67,388 pupils engaged in the cultivation of home-vegetable gardens. There is no good reason why it should not be possible to report that every city and town school has children working at home or on vacant lots at gardening.

THE SCHOOLS AND FOOD CONSERVATION.

Home economics teachers and food economy courses.—Another immediate war problem in which the aid of the schools was sought was food conservation. The bureau's specialists in home economics were assigned the task of helping teachers to adapt their work to war conditions. Between April 18 and May 18 six circulars were printed and distributed, five of them dealing specifically with food-conservation topics, as follows: "What the home economics teacher can do"; "Economy in food courses"; "High-school food economies in practice"; "A brief course in food economy for colleges and normal schools"; "A course in food economies for the housekeeper"; and "Service to be rendered by college and university home-economics departments." Approximately 80,000 copies of these and similar circulars have been issued since the opening of the war. The circulars emphasized the special duty and the special opportunity imposed upon home-economics teachers by the war. They pointed out that the present crisis in the food situation was "a direct challenge to all teachers of foods and cookery in the United States"; that "their scientific knowledge, their technical training, and their close relation to the homes of the community in which they teach give them a unique opportunity to serve their country at the present time. The value of the home-economics courses in our schools will be put to the test as never before, and all who have had the privilege of pursuing such courses, from the child in the grades to the college graduate, will be expected to contribute to the solution of the national problem."

Home-economics teachers were urged to see that their lessons always exemplified the economy in cooking that it is necessary to teach at all times, but especially in war time; that advantageous arrangements be made for the disposal of the products of the cooking class; that no time be wasted on fancy cookery. They were asked to teach the use of substitutes for certain of the more expensive foods. Courses in food economies were outlined for colleges and normal schools and for teachers engaged in giving instruction to groups of housekeepers, and practical lists of references were circulated to give teachers access to the rapidly growing literature of food conservation.

Again the bureau's machinery of distribution was availed of and pamphlets prepared by the Department of Agriculture, the Food Administration, and other agencies were distributed to school officials and to a comprehensive list of home-economics teachers.

Cooperation with the Food Administration.—Of special importance has been the cooperation with the Food Administration. The pamphlet "Ten Lessons in Food Conservation," compiled by Mr. Hoover's office in collaboration with the Department of Agriculture, the Bureau of Education, and home-economics experts from outside the Federal service, was distributed to summer schools, to teachers' institutes, and to individual workers engaged in teaching the principles and practice of conservation, so that the fundamentals of food saving might be made known as widely as possible by the teachers in their regular school work. The subjects of these lessons were as follows: I. Food the deciding factor; plan of the United States Food Administration. II. Food conservation measures. III, IV. Wheat conservation. V. Conservation of meat. VI. Sugar and fats. VII, VIII. Preserving food in the home. IX. Fundamentals of an adequate diet. X. General. The personal services of the bureau's workers in home economics were also applied to this problem; instruction was given at a number of summer schools throughout the United States.

A still more direct attempt to reach the people through the schools is involved in the Lessons in Community and National Life published by the Bureau of Education in cooperation with the Food Administration. These are direct, authoritative, simple lessons in the fundamentals of present-day world organization in special relation to the problems brought forward by the war. Each month three groups of lessons are to be issued, one for the upper classes of high schools, another for the upper grades of elementary schools and the first class of high schools, and the third designed for intermediate grades of elementary schools. For each group there will be three or four lessons every month during the eight months of the school year 1917–18. These lesson leaflets are sold to the schools at cost by the Government.

By means of these lesson leaflets it is proposed to make known to the boys and girls in the schools, and through them to the parents, the economic, industrial, and social facts that need to be realized for a proper understanding of the problems of the war. The October issue covers, for example, in the case of the upper classes of the high schools, lessons on "Some fundamental aspects of social organization"; "The western pioneer"; and "The cooperation of specialists in modern society." A well-known economist points out how the great war has "called attention sharply to facts which were so common that most of us did not observe them at all and certainly did not recognize them as of tremendous importance." The experience of France is outlined, and the interdependence characteristic of modern life, especially in the interchange of foodstuffs and other materials, is made clear. The self-sufficing frontiersman is compared with the modern man and his elaborate methods of cooperation. In story form the complexities of modern society using machine industry and subject to social control are interestingly revealed. The group of lessons designed for the use of the upper grades of the elementary schools and the first year of the high school discusses the effect of war on the commerce in nitrate, describes the importance of nitrate in food production, and analyzes the methods by which nitrate is obtained. One lesson is given on "The varied occupations of the colonial farm" in contrast with the factory method of to-day. Still another lesson is given on the work involved in feeding a city.

The third group of October lessons, designed for pupils of the intermediate grades, includes material on "War and aeroplanes," describing the remarkable development that has taken place in aviation since the beginning of the war; a lesson on spinning and dyeing linen in colonial times, in which home manufacturing, raising flax and getting the fiber, and dyeing and bleaching, are compared with the specialized processes of to-day; and two other lessons, devoted to the water supply of a town or city and to petroleum and its uses.

The entire series represents one of the most significant attempts ever made to bring into the schools the facts of modern civilization.

SCHOOL ATTENDANCE.

It was soon seen that, with due regard for the importance of enlisting the aid of the schools in the two war tasks of increased crop production and food conservation, the fundamental work of the bureau must be in conserving the youth of the Nation and in maintaining school attendance to the highest possible point. School children were appealed to on the grounds of patriotic duty to continue their schooling. Under date of April 20 the Commissioner of Education sent to city and county school superintendents throughout the United States a letter prepared by Payson Smith, State commissioner of education for Massachusetts, urging that there be no interference

with the program of public education except under conditions of most absolute and final necessity, and pointing out that any serious interruptions to the fundamental task of the schools would mean an unfair burden for the next generation. Commissioner Smith added, stating a policy to which most States and communities have been able to adhere:

Such a procedure as I have endeavored to indicate need not preclude the possibility, in the cases of older students, of their release for any emergency task created by national need. For example, while it would be highly undesirable to close the schools or shorten the terms for the sake of releasing the student body as a whole for industrial pursuits, it may very well appear in many individual cases that older students, both boys and girls, may be released from a part of their school work for such service as may be involved in the production and conservation of food supply. Whenever such release is made, school officials should have definite knowledge that a position actually awaits the released student, and that his loss of school time will be minimized by such individual instruction as teachers may be able to arrange. Students in good standing in the senior classes of secondary schools might be released for such duty before the closing of the term, provided, of course, those intending to enter higher institutions can make adjustment of their entrance credits with the proper authorities.

During the first weeks of the war the Bureau of Education was besieged for advice in this matter of school attendance. There seemed to be a tendency to abandon some of the safeguards that society had placed about the labor of children. Persistent efforts were made in a number of States to suspend child-labor and compulsory-attendance laws that have been put on the statute books after years of strenuous efforts in behalf of childhood. The Bureau of Education used its facilities wherever possible to oppose any tampering with compulsory school-attendance acts, in some cases sending representatives to the States and in all cases pointing out that the work of the public schools must not be interrupted. In this stand the bureau had, of course, the earnest and active support of other governmental agencies and especially of the President of the United States.

An appeal to high-school students.—High-school students were particularly affected by the war situation. Drafts of labor for military and industrial purposes were such that high-school students of both sexes found themselves in demand for employment at wages that would not be dreamed of in normal times. Undoubtedly many boys and girls would leave school for the temporary advantage of high wages. To help reduce this loss as much as possible, and to create understanding of the national importance of continuing high-school work and going on to college, the Commissioner of Education sent broadcast to all supervisory school officials and to all high-school principals the following appeal:

To pupils in public and private high schools of the United States:

There are in the high schools of the United States more than one and one-half millions of boys and girls, and somewhat more than 200,000 will graduate this June. In an ordinary year 90,000 or more of these would this fall enter college, normal school, or

technical school to be prepared for such service to society, State, and Nation, as can be rendered only by those who have received education beyond that which the high schools can give.

Many college presidents and others fear that on account of our entrance into the war few boys and girls will enter college this fall and that the total college attendance will be very small. The number ought, however, to be much larger than usual; and, as Commissioner of Education of the United States, I wish to urge all boys and girls who graduate from high school this year and who can possibly do so to enter some institution of higher learning this fall—college or normal school or technical or vocational school of some kind. There should be more students in the schools next year than ever before.

The more mature young men are, the more serviceable they are in the Army. The selective draft will take only those between 21 and 30. In the total of 60,000,000 people of productive age in the United States the 350,000 students in colleges and normal schools and technical and vocational schools of high grade constitute only about one-half of 1 per cent. More than half of these live in cities and can not be employed in agricultural production except as a few of them may find work on the farms during the summer. Their going to college will not lower the productive capacity of the country as a whole in any appreciable degree. The colleges, normal schools, and technical schools will all be open with undiminished income from public funds and endowments, and the expense of their maintenance will continue. It is quite probable that many of the older students will not return this fall and the higher classes will be smaller than usual. The graduates from the high schools should see to it that the lower classes more than make up for this deficiency.

This appeal is made on the basis of patriotic duty. If the war should be long, the country will need all the trained men and women it can get—many more than it now has. There will be men in abundance to fight in the trenches, but there will be a dearth of officers, engineers, and men of scientific knowledge and skill in all the industries, in transportation, and in many other places where skill and daring are just as necessary for success as in the trenches. The first call of the allies was for 12,000 engineers and skilled men to repair the railroads of France and England, and other thousands will be needed later. Russia will probably want thousands of men to repair and build her railroads. New industrial plants, shipyards, and our armies abroad will call for highly trained men beyond all possible supply unless our colleges and technical schools remain open and increase their attendance and output.

When the war is over there will be made upon us such demands for men and women of knowledge and training as have never before come to any country. There will be equal need for a much higher average of general intelligence for citizenship than has been necessary until now. The world will have to be rebuilt, and American college men and women must assume a large part of the task. In all international affairs we must play a more important part than we have in the past. For years we must feed our own industrial population and a large part of the population of western and central Europe. We must readjust our industrial and social and civic life and institutions. We must extend our foreign commerce. We must increase our production to pay our large war debts and to carry on all the enterprises for the general welfare which have been begun but many of which will be retarded as the war continues. China and Russia, with their new democracies and their new developments which will come as a result, will need and ask our help in many ways. England, France, Italy, and the central powers will all be going through a process of reconstruction, and we should be ready to give them generously every possible help. Their colleges and universities are now almost empty. Their older students, their recent graduates, and their younger professors are fighting and dying in the trenches, or are already dead; as are many of their older scientific and literary men, artists, and others whose work is necessary for the enlargement of the cultural and spiritual life and for all that makes for higher civil-

ization. For many years after the war is over some of these countries will be unable to support their colleges and universities as they have supported them in the past. America must come to the rescue. We must be ready to assume all the responsibilities and perform thoroughly and well all the duties that will come to us in the new and more closely related world which will rise out of the ruins of the Old World which is now passing away in the destruction of the war. To what extent and how well we may be able to do this will depend upon you young men and women who this year graduate from our high schools and upon those who will follow in the next few years to a larger degree than upon any other like number of people.

Therefore, I appeal to you, as you love your country and would serve your country and mankind, that you make full use of every opportunity offered by our colleges and all other institutions to gain all possible preparation for the mighty tasks that lie before you, possibly in war and certainly in peace. To you comes the call clear and strong as it has seldom come to young men and women anywhere in the world at any time For your country and for the world, for the immediate and the far-reaching future you should respond.

Yours sincerely,

P. P. CLAXTON, *Commissioner.*

A program of education for the war.—So insistent was the demand for an authoritative statement on the duties of schools during the war that on May 22 the Commissioner of Education issued a printed pamphlet containing "Suggestions for the conduct of educational institutions during the continuance of the war." This pamphlet summarized the material in the letters and circulars that had gone out from the bureau and at the same time offered a program for the guidance of school authorities during the war. This program, somewhat abridged, is as follows:

All schools of whatever grade should remain open with their full quota of officers and teachers. The salaries of teachers should not be lowered in this time of unusual high cost of living. When possible, salaries should be increased in proportion to the services rendered. Since the people will be taxed heavily by the Federal Government for the payment of the expenses of the war, teachers should be willing to continue to do their work, and do it as well as they can, as a patriotic service even if their salaries can not now be increased. All equipment necessary for the best use of the time of teachers and students should be provided, as should all necesssary increase of room, but costly building should not be undertaken now while the prices of building material are excessively high and while there are urgent and unfilled demands for labor in industries pertaining directly and immediately to the national defense. Schools should be continued in full efficiency, but in most instances costly building may well be postponed.

During school hours and out of school, on mornings, afternoons, Saturdays, and during vacation all older children and youth should be encouraged and directed to do as much useful productive work as they can without interfering with their more important school duties. This productive work should be so directed as to give it the highest possible value, both economically and educationally. For children and youth in schools of all grades there will be need of more effective moral training, and provision should be made for this. While the war for the safety of democracy is in progress and when it is over, there will be greater need for effective machinery for the promotion of intelligent discussion of the principles of democracy and all that pertains to the public welfare of local communities, counties, States, and the Nation. To this end every schoolhouse should be made a community center and civic forum for the discussion of matters of public interest and for social intercourse.

I. ELEMENTARY SCHOOLS.

Except in case of great need, attendance laws should be enforced as usual. Parents should be encouraged to make all possible efforts to keep their children in school and should have public or private help when they can not do so without it. Many young children will lack the home care given them in times of peace, and there will be need of many more kindergartens and Montessori schools than we now have. Much might be gained by keeping the elementary schools open all the year with such changes in study and daily regimen as may be necessary to adapt the schools to the changes of the season. A school year of four terms of 12 weeks each is suggested. Home gardening and other useful occupations should be encouraged and when possible should be directed by the school. In country and village schools boys and girls should be encouraged to join corn clubs, canning clubs, poultry clubs, and other similar clubs for the production and conservation of foods.

II. HIGH SCHOOLS.

The attendance in the high schools should be increased, and more boys and girls should be induced to remain until their course is completed. A school year of four terms of 12 weeks each is recommended for the high schools, as for the elementary schools. In the high schools adopting this plan arrangements should be made for half-time attendance for as large a proportion of pupils as possible. In all high schools more attention should be given to chemistry, physics, biology, and to industrial, social, and civic subjects. Where possible, high schools should remain open during the summer and give intensive work in the sciences, in manual training, domestic science and arts, and in trades and industries. All laboratories and manual-training shops in high schools should be run at their full capacity. In many of the shops work should be done which will have immediate value for the national defense.

In all high schools in which domestic science (sewing, cooking, sanitation, etc.) is taught, large units of time should be given in the summer and fall to sewing for the Red Cross and for local charities. Classes for grown-up women should be formed in which practical instruction can be given by lecture and demonstration in the conservation and economic use of food. These classes should meet at such times as may be most convenient for the women, and all women who have to do with housekeeping or home making should be encouraged to attend them. In country and village high schools in which agriculture and domestic science are taught, boys and girls should be encouraged to undertake home projects under the direction of their teachers, and classes meeting once a week or oftener should be formed for the women of the community for instruction in the preservation of foods, sanitation, and economic housekeeping.

III. CONTINUATION SCHOOLS AND EVENING SCHOOLS.

For all boys and girls who can not attend the day sessions of the high schools, continuation classes should be formed, to meet at such times as may be arranged during working hours or in the evening. All cities should maintain evening schools for adult men and women. In cities having considerable numbers of immigrants, evening schools should be maintained for them with classes in English, in civics, and such other subjects as will be helpful to these foreigners in understanding our industrial, social, civic, and political life.

IV. NORMAL SCHOOLS.

In few States is the supply of broadly educated and well-trained teachers equal to the demand. In some States the normal schools do not yet prepare half enough teachers to fill the vacancies. The need for better schools to meet the new demands for a higher level of average intelligence, scientific knowledge, and industrial skill, which will come with the reestablishment of peace, makes more urgent the need

for more and better trained teachers. Every dollar expended for education and every day of every child in school must be made to produce the fullest possible returns. The normal schools should double their energies and use all their funds in the most economic way for the work of preparing teachers. Appropriations for the support of normal schools should be largely increased, as should also the attendance of men and women preparing for service as teachers. Most of these schools now have summer sessions and adapt their work to the needs and convenience of their students, and especially of teachers already in the service who wish to use their vacations in further preparation. All normal schools that do not do this now should at once make arrangements to do it. Such normal schools as have well-equipped departments of domestic science or home economics should offer special courses for teachers and other women who are willing to form classes in domestic science and arts at the rural and village schools for the women of the communities in which the schools are located.

V. COLLEGES, UNIVERSITIES, AND TECHNICAL SCHOOLS.

All young men below the age of liability to selective draft and those not recommended for special service should be urged to remain and take full advantage of the opportunities offered by the colleges, universities, and technical schools, to the end that they may be able to render the most effective service in the later years of the war and the times of need that will follow. Practically all women students should remain and all boys and girls graduating from high schools should be urged to enter college, technical school, or normal school. The total number of students in these schools should be increased rather than diminished. All students should be made to understand that it is their duty to give to their country and to the world the best and fullest possible measure of service, and that both will need more than they will get of that high type of service which only men and women of the best education and training can give. Patriotism and the desire to serve humanity may require of these young men and women the exercise of that very high type of self-restraint that will keep them to their tasks of preparation until the time comes when they can render service which can not be rendered by others.

All institutions of higher learning should reduce the cost of living and all other expenses to the lowest possible figure so that the fewest possible number may be excluded because of the cost of attendance. Calendars of colleges, universities, and technical schools should be so modified as to enable them to use their plants most fully and to meet most effectively the needs of their students. It is probable that for many the school year of four quarters of 12 weeks each will prove most useful. For others, summer courses with special emphasis on engineering and other technical and professional courses may be best. Quite certainly, all these institutions should give every possible opportunity for intensive instruction in these subjects and in chemistry, physics, biology, and their practical, productive applications. Full use should be made of all laboratories and shops, whether for teaching and demonstration or for research.

In agricultural colleges special intensive courses should be given to prepare teachers, directors, and supervisors of agriculture and practical farm superintendents. It should be remembered that the scientific knowledge and the supervising and directing skill of these men and their ability to increase the productive capacity of thousands of men of less knowledge and skill are far more valuable than the work they can do as farm hands. The desire to render immediate service is praiseworthy, and the spirit which prompts it should be fostered, but it is effective service that finally counts. Schools and school officers, teachers and students should ever keep this goal of effective service in mind.

On July 20 President Wilson, in reply to a letter from Secretary Lane, wrote: "It would, as you suggest, seriously impair America's

prospects of success in this war if the supply of highly trained men were unnecessarily diminished. There will be need for a larger number of persons expert in the various fields of applied science than ever before. * * * I would particularly urge upon young people who are leaving our high schools that as many of them as can do so avail themselves this year of the opportunities offered by the colleges and technical schools, to the end that the country may not lack an adequate supply of trained men and women." President Wilson's letter on this subject was reproduced in facsimile by the Bureau of Education and distributed among the schools.

The campaign for school attendance.—Immediately following the close of the schools in June, preparations were made for a campaign for better school attendance in the fall of 1917. It was realized that the most serious effects of the war upon school attendance would make their appearance at the opening of the new school year. Accordingly, every possible agency was pressed into service to help bring it about that children should resume school as usual. Labor unions were asked to use their influence to see that there was no lowering of standards in the education provided for children and that no children of school age be allowed to remain out of school except in cases of absolute necessity. In a letter addressed to State and city labor bodies and to the labor press, the Commissioner of Education wrote: "For the protection of our boys and girls against unusual temptations to fall into delinquencies of many kinds, and that they may be prepared more fully for the work of life and the duties and responsibilities of citizenship, it is of the utmost importance that our schools shall be maintained in full efficiency, both as to attendance and standards of work, during the continuance of the war, and everything possible should be done to increase their efficiency in both respects." Ministers were urged to preach on the importance of school attendance as a patriotic duty, and Sunday-school superintendents and leaders of young peoples' societies in the various churches were requested to make school attendance a special topic. They were reminded that in the "making of public opinion and popular sentiment necessary for the maintenance of standards of efficiency, to keep children in the schools and to prevent their exploitation in the mills and shops, the churches may do much."

Special appeals were also addressed to women's clubs and to parent-teacher associations. To the club women the commissioner wrote:

> Everywhere there seems to be fear lest our schools of all kinds and grades, and especially the public schools, will suffer this year because of conditions growing out of our entrance into the war. On the other hand, both for the present defense and for the future welfare of our country, as well as for the individual benefit of the children, it is of the greatest importance that the schools shall be maintained in their full efficiency both as to standards of work and attendance of children.

While the war continues there will be many unusual temptations to many kinds of juvenile delinquencies. Prompt and regular attendance at school and proper employment during out-of-school hours will be the children's surest protection against such temptations.

When the boys and girls now of school age have reached manhood and womanhood there will be need for a higher standard of intelligence, skill, and wisdom for the work of life and for the duties and responsibilities of citizenship than we have ever yet attained. Our schools must now be so sustained and improved as to enable them better to prepare our boys and girls for life and work in the new age which will follow the close of the war and the coming of peace. No boys and girls must now be neglected or exploited for selfish ends.

In all this probably no others can be quite so helpful as the club women of the country, most of whom are also mothers of children. For this reason I am taking the liberty of suggesting to them that in all women's clubs this should be made a subject of discussion at their first meetings this fall and from time to time throughout the year.

Parent-teacher associations were told that they were the logical organizations to assume the responsibility for taking a census of every home in the community, of knowing definitely how the war has affected each family, and of listing every agency that can be helpful in providing assistance in the care of children during the out-of-school hours. "Men who give their lives for their country," said the commissioner, "have a right to demand that their children's education shall be uninterrupted and that every protection and elevating influence shall be extended to make up, in a degree, for the abnormal conditions which war entails."

The extent to which the appeals to continue education have been heeded can not yet be accurately determined. There has been some falling off in college enrollment of youths below the selected draft age, but apparently not as great as was anticipated. Figures so far received indicate a decrease of 11 per cent over last year in the entering classes of colleges of liberal arts and 22 per cent for colleges of agriculture, but only 4 per cent in the freshman classes of engineering colleges. Public school enrollments, based on figures from four typical States, show an increase of 3 per cent in the elementary grades and seven-tenths of 1 per cent in the high school. It is probably significant that while the first three high school years show losses, there is a gain in the enrollment for the senior year.

REACHING PUBLIC UNDERSTANDING THROUGH THE SCHOOLS.

At the earliest practicable moment the distribution machinery of the Bureau of Education, to which reference has already been made, was used for the purpose of making better understood the war aims of the United States. President Wilson's war message was sent to all the 15,000 high schools in the United States, an outside organization furnishing the documents and the bureau mailing them. The newly created Committee on Public Information utilized the bureau's

automatic mailing lists to reach State, city, county, and university school officials with copies of the annotated war message and the pamphlet How the War Came to America. The Bureau of Education suggested as one of the possible types of service in this connection the use of school commencements for the discussion of patriotic subjects, and the Secretary of the Interior sent a letter to all universities and colleges, normal schools and high schools, urging this and inclosing a number of suggested topics for commencement-day essays or orations, together with suitable references.

Opportunities for history teachers.—Later, cooperation was effected with the National Board for Historical Service, whereby a teachers' leaflet was printed and circulated among high schools and other institutions for the purpose of "suggesting certain aspects of history, ancient and modern, that have gained a new interest in the light of the great war, especially since America itself has become one of the belligerent powers." The leaflet presents articles on four special fields of history—American history, medieval and modern Europe, English history, and American history. It points out that, while many teachers have answered the call to the colors or have found opportunities for service in the Red Cross or other forms of relief work, those who remain at home in their customary places have a kind of service that represents a special opportunity for obligation. Even though "misguided patriots may abuse history," it is asserted there is a real and important relation between history and patriotism; and while in normal times of peace this obvious historic fact may seem less real and compelling, when war comes, with its demand for heavy sacrifice in defense of national ideals, "success or failure for the Nation may turn very largely on the proportion of its citizens in whom the essential historic conception of their membership in a continuing community, more important than their own individual fortunes, has become a real motive force." Nor is this quickening of the community spirit the only way in which the history teacher may be of special service to the Nation, according to the bureau's leaflet. "The teacher of history has it in his power to help to steady public opinion against superficial judgment of men or hasty conclusions as to the course of events. The training of young people and of the parents through the pupils to take an intelligent part in the decision of public questions is important enough at any time, but it is especially so in this war, and the history teacher is in an especial position to make clear that the United States is fighting not only for its own rights, but over and above these special rights it is fighting for international law itself, without which no nation can be safe—least of all those democratic governments which are less effectively organized for war than for peace."

The bureau's leaflet insisted that history teachers can help the public not only to know something about the history of foreign nations, but to understand particularly the relations of the United States with some of the more important of them. The teacher who knows how to stir interest in the many connections between the Old World and the New, so important for this war, will not only be enriching the lives of his individual pupils, but he will be helping the American people to take an intelligent part in the new responsibilities to which they have been called, responsibilities which look beyond the clash of arms to the establishment of a better international order, a real society of nations."

Other war activities.—At the close of the year arrangements were under consideration for other types of war work by the Bureau, especially school participation in Red Cross work and education of illiterates among the conscripts in the National Army cantonments.

II.

EDUCATIONAL SURVEYS.[1]

During 1916–17 the Bureau undertook educational surveys of Wyoming, Arizona, Colorado, Delaware, and Tennessee, besides completing the publication work incidental to the surveys of the State of Washington and of the higher educational institutions of Iowa and North Dakota. Surveys were also made of the cities of San Francisco, Cal., Elyria, Ohio, and Webster Groves, Mo.; of Falls and Walker Counties, Tex.; of the University of Nevada and of Bradley Polytechnic Institute, Peoria, Ill. The reports of the Wyoming and Colorado surveys were completed and published during the year. Field work was completed on the Arizona survey and a brief preliminary report issued; the full report will later be published as a printed document. A considerable amount of field work was done on the surveys of Delaware and Tennessee. The South Dakota Legislature passed an act providing for an educational survey, and the Commissioner of Education has been asked to make the survey. A preliminary report of the San Francisco survey has been presented to the Board of Education of San Francisco and the printed document will soon be issued. A report on the Webster Groves survey has been made to the school authorities of the city; the report of the Elyria survey is to be issued in printed form, while the reports on Falls and Walker Counties, Tex., have not yet been published. The report of the survey of the schools of Nassau County, N. Y., in which the Bureau of Education participated, has been issued by the New York State department of education. The University of Nevada survey report is now in the hands of the printer. To the list of survey reports should be added, as illustrative of a special type of survey work, the two-volume report on Negro Education, completed during the year and published as a bulletin of the bureau. Field study in the investigation of Education in the Appalachian Mountain counties, begun in 1915, was completed, and a preliminary report was presented.

EDUCATIONAL SURVEY WORK AS A FUNCTION OF THE BUREAU OF EDUCATION.

In its educational survey work the Bureau of Education is carrying out in the most direct manner possible the task contemplated in the original act creating the bureau. The act of 1867 provided for the

[1] See also the Annual Statement of the Commissioner of Education, 1916; Bulletin, 1916, No. 46, Recent Movements in College and University Administration; and the chapters on surveys in the annual reports of the commissioner for 1914, 1915, and 1916.

establishment of a department of education for the purpose of "collecting such statistics and facts as shall show the condition and progress of education in the several States and Territories and diffusing such information respecting the organization and management of school systems and methods of teaching as shall aid the problem of the United States in the establishment and maintenance of efficient school systems." It is precisely this function that the educational survey fulfills. It aims to be "a critical, nonpartisan expert examination of general facts and records, educational policies and methods, and the social and economic setting of an institution or group of institutions," [1] with a view to suggesting improvements, not only to the State or community surveyed, but also to other States and communities with similar problems. It is already evident that the bureau's efforts in this field have contributed to the adoption of higher standards and to a clearer understanding of the purposes of various types of educational institutions. In every case the surveys made by the Bureau of Education have culminated in constructive recommendations and many of these recommendations have already been enacted into law.

Numerous agencies have made educational surveys in the past five years. The State surveys of Ohio, Vermont, and Maryland were made by or with the cooperation of such private foundations as the New York Bureau of Municipal Research, the Carnegie Foundation for the Advancement of Teaching, and the General Education Board. State university surveys have been made occasionally by private agencies or individuals usually employed for the work by State commissions or other boards appointed by the legislatures. Some of the city educational surveys have been made by representatives of State departments of education, by professors of university departments or schools of education, or by groups of such professors and their students; while some of the most important and influential city surveys, such as those of Cleveland, Richmond, and Minneapolis, have been made by school men or representatives of university departments of education and industrial investigators organized into a working group under the auspices of such agencies as the Cleveland Foundation, the Russell Sage Foundation, and the National Society for the Promotion of Industrial Education. In this field private philanthropy has taken the initiative, as so often, in doing work for which the Government was not yet ready. It is becoming more and more evident, however, that the educational survey constitutes a type of service most appropriately rendered by the Federal Bureau of Education. The bureau necessarily represents no locality or special interest; its officers are obliged by their positions to have the widest possible acquaintance with educational conditions; it has immediately avail-

[1] Annual Statement of the Commissioner of Education, 1917.

able the statistics and other material essential to any comparative review of schools or school systems; and the bureau is a public instrument supported by the entire country.

DUPLICATION AMONG HIGHER INSTITUTIONS; "MAJOR AND SERVICE LINES."

In the surveys already made by the bureau many of the most important educational problems of the States have been analyzed and brought nearer to solution. In the survey of the Iowa State higher educational institutions, with which the bureau resumed its survey activities in 1914, the urgent problem of duplication of effort among State educational institutions received the thorough and impartial treatment it demands. Here is a typical State educational problem that is often quite impossible of solution without recourse to some disinterested outside qualified agency that is free from local prejudices. The principle of "major and service lines" of work, laid down in the Iowa survey report and utilized as a basis for recommendations in other surveys made by the Bureau of Education, has already proved to be specifically valuable as a guide to legislators faced with the inherently difficult problems of college and university factions demanding appropriations. In the Iowa and similar surveys the bureau, though not avoiding direct recommendations for changes in existing conditions, has sought rather to enunciate principles that would prove to be of general application.

The principle of "major and service lines" of work has been so much discussed during the past two years and so often misrepresented and misinterpreted that a restatement of it may be helpful.[1]

In most States where the university is at one place and the agricultural college at another there is or has been more or less friction between the two institutions. This friction is intensified in States where two strong aggressive institutions have been developed, each striving to enlarge its field of operation. In some of these States the agricultural college has rapidly expanded into a technical university, while the university, striving to become a modern institution, to train men and women for practical pursuits and not alone for the older professions of law, medicine, and teaching, has also tended to become a technical university. The problem in these States is to eliminate, if possible, unnecessary duplication of work, with its accompanying inefficiency and waste of effort and money.

But what is justifiable duplication? During the first two years of college work there are certain fundamental branches that are common to several of the professional schools or colleges. The offering of these fundamental courses at more than one institution

[1] This statement is practically as given in Bulletin, 1916, No. 27. A more detailed discussion will be found in Bulletin, 1916, No. 19.

does not necessarily constitute unjustifiable or unduly expensive duplication. For example, such subjects as English, modern languages, mathematics, chemistry, and physics may usually be taught at two or more colleges at but little greater cost than at one, provided the equipment and teaching staff are utilized to anything like their capacity and class sections are not too small. It costs but very little more to offer five sections in mathematics at one institution, and five sections in the same course at another, than to offer ten sections at the same institution. The library and laboratory equipment for such students, in the introductory stages of these courses, is relatively inexpensive as compared with the equipment required for more advanced students, and especially for graduate students and professional students of medicine, law, and engineering.

What is unjustifiable duplication? There is unjustifiable duplication in work when two or more institutions are doing work which might be done more efficiently and more economically and to the full extent required by the needs of the State by one institution or department.

In accordance with the principle of major and service lines each State institution should have assigned to it certain major fields which it should develop as fully as may be practicable. Literature, history, and philosophy at the university are such major lines; at the agricultural college, agriculture and home economics.

Service lines are such subordinate subjects as are essential to the proper cultivation of a major line. The amount required in these lines varies, but is generally not very full or comprehensive, being usually directed toward a special purpose. The modern languages are service lines at the agricultural college; home economics at the university. Institutions may well overlap as regards the relation of their service lines to one another, and more particularly as regards the relation of their major to their service lines. English is a major line at the university, a service line at the agricultural college. There should be no material overlapping of major lines.

Certain subjects, as the bureau readily concedes, do not fall readily into line on such a principle of division. But, as the bureau points out:

> The detailed adjustments of these cases of overlapping, once the main principle has been accepted, seem capable of amicable settlement by means of a conference consisting of some convenient number of representatives of the faculties of the institutions affected (perhaps five from each), elected by the faculties and sitting with the State commissioner of education and a committee of members of the State board of regents. Such a conference might meet at stated periods, perhaps annually, to consider and adjust any difficulties that may arise from time to time. Meantime the principle of the major and the service lines will automatically settle the status of the larger number of subjects, and forthwith determine whether in a particular institution they shall be developed beyond their elementary stages.

The bureau believes that if the principle of the establishment of major lines of work forming the main structure in the curricula of the State institutions be accepted, another principle will be at once clearly defined; namely, that all departments in an institution must be treated alike in the matter of those roughly adequate provisions of men and apparatus with which to do the work required by the purposes of the college, but that all departments need not be treated alike in facilities for expansion and outreach into graduate courses and research. "A service department is a service department and not a major department and it must so remain if waste and unwarrantable duplication of effort and expenditure are to be avoided."

FUNDAMENTAL ASSUMPTIONS IN SURVEY WORK.

The attitude of the bureau in making recommendations regarding the higher institutions of the States, as shown in the various surveys, may be best summarized in the list of "presuppositions" accompanying the recommendations in the North Dakota report. The section is so important for an understanding of the current work of the bureau as well as for any future educational work the Federal Government may do in the various States that it is given in full.

In making these recommendations it is assumed:

1. That all the institutions to which they refer belong alike to all the people of the State and constitute an integral part of the system of public education, and that no one of them is thought of as belonging to any particular class of people—as the poor or the rich, the people of the country or the people of the city, the farming or the industrial or the professional classes.

2. That each institution has its own particular function or group of functions to perform and finds its greatest usefulness in rendering to the people of the State its own peculiar service.

3. That all these forms of service are equally worthy and dignified if performed equally well.

4. That the officers of no one of these institutions desire to magnify for itself alone the institution for which they are responsible, but only to make it render most fully and most efficiently its particular service without encroaching upon the functions of any other institution.

5. That above all these institutions are the people of the State who have established them and who maintain them by their taxes, who are equally interested in them all, and who expect from all loyal service, each in its own field, and economical use of funds provided.

6. That the people of the State are both willing and able to provide all funds that may be needed by any institution for its legitimate work, but that they are neither willing nor able to provide funds for any one of the institutions to extend its work into fields covered by other institutions.

7. That the kind, degree, and quantity of higher education to be provided by a State at any time, particularly education of a vocational nature, should be shaped according to the character of the people, their social and political ideals, their occupations, and their vocational needs as determined by the natural resources of the State.

8. That in a State which has established more than one institution of higher learning the people and their responsible representatives have the right and must face the

obligation to apportion among these institutions the work of higher education in such way as will best serve all the interests of the State, and that it is their right and duty to change this apportionment whenever the public interest may demand such change, provided it may be done without violation of contract or of obligation to the Federal Government.

9. That the offering of the same subjects or the same or similar courses of study in the curricula of two or more institutions in the same State should be avoided as uneconomical and harmful duplication of effort: (*a*) When the total demand for such subjects or courses of study in the life of the State and the number of students applying therefor are not sufficient to justify the expense of giving instruction in them at more than one place; (*b*) when in the attempt to maintain such courses at any one of the institutions money, equipment, time, and energy are used that might be more profitably devoted to other purposes; (*c*) when the attempt to maintain such courses tends to confuse the purposes of the institution and to divert it from its more legitimate and immediate aims; and (*d*) when such division or duplication tends to detract from and weaken the courses in question as given at the institution in which they primarily and more legitimately belong.

10. That any subject which two or more institutions may desire to include in their curricula, but for which there is clearly not sufficient demand to justify its being offered by more than one institution, should be offered at that institution which already has in its curriculum as an essential part of its main purpose the necessary accompanying or supporting subjects, rather than at an institution in which such accompanying or supporting subjects would need to be provided for this particular purpose and without necessary relation to other subjects taught in that institution or to its main purposes; as, for examples, engineering courses dependent for their development on advanced courses in mathematics and physics, or other engineering courses dependent for their development on advanced courses in chemistry or biology.

11. That no institution established and maintained as a State institution should function chiefly as a local institution, appropriating State funds to purely local uses.

12. That the board of regents responsible for the general management of all the institutions included in this survey, while seeking to promote the harmonious cooperation of all as parts of one unified, flexible, adjustable, democratic system of education for the most efficient service of the State, desires also that the individuality, spirit, and best traditions of each institution shall be preserved.

School administration in the State surveys.—Even more fundamentally important in general educational progress are the bureau's contributions to State and local school administration as contained in the survey reports of Wyoming, Arizona, and Colorada. Here the problem is not so much one of enunciating new principles as of making known and applying locally principles already recognized by educational administrators everywhere. Better enrollment and attendance, to be secured by more adequate and more stimulating distribution of State school moneys; stronger State centralization wherever necessary; a larger unit of administration for rural schools, to replace the small independent districts; professional, nonpolitical State and county school superintendents, to be appointed instead of elected officers; consolidation of schools in rural communities; expert supervision, particularly in rural schools; higher professional standards for teachers, particularly in country communities; more adequate provision for industrial and agricultural instruction; these are some of

the things insisted upon in practically all the State school surveys made by the Bureau of Education.

As indicating somewhat more in detail the type of work done by the bureau in its surveys, descriptive statements are given below of the surveys of Wyoming, Colorado, Arizona, San Francisco, and the University of Nevada. The Nevada report may be considered as typical of the bureau's contribution to the list of surveys of individual higher educational institutions.

WYOMING.

The educational survey of Wyoming was made at the request of a school code committee appointed by the governor in compliance with an act of the legislature. Two officials of the bureau were detailed to Wyoming to make a study of the laws of the State pertaining to education, the administration of the State school system, and certain phases of the work of the schools, and to make recommendations for the good of the schools through legislation and otherwise. The survey comprised:

(*a*) A thorough investigation of grounds, buildings, water supply, etc., conducted through personal investigation and collection of information through questionnaires;
(*b*) A careful inquiry into the education and professional qualifications, living conditions, and salaries of teachers, conducted in the same manner;
(*c*) An intensive study of instruction offered in three counties selected as typical of general conditions made by personal investigation by members of the committee and representatives of the bureau;
(*d*) An investigation into qualifications and work of the county superintendents;
(*e*) A study of financial support, State, county, and local;
(*f*) General information concerning high school and city school systems.

The point of view which the investigators kept constantly in mind was that of general measurement of the system as a State system in terms of service to the State. The report as published contains a sketch of the history of education in Wyoming, including a description of the present system; a discussion of education in the State, involving buildings and equipment, enrollment and attendance, teaching corps, instruction, and supervision. It was pointed out that the problem of economic construction and sanitary housing of schools in Wyoming is unique and difficult; that the population is sparse and scattered, and that schools must be relatively numerous, far apart, and small in membership for years to come. "One need not travel far in Wyoming to find schoolhouses of the best and of the worst possible types. The greatest need seems to be that the State or county should adopt some settled and economical policy of schoolhouse construction which will provide measures of general improvement for present conditions and certain minimum standards for the future." It is urged that schoolhouses be so located that at least an elementary school may be within walking or riding distance

(probably not to exceed 6 miles) of every child of school age. County superintendents and others declare that there are now many children living so far from any schoolhouse that they are deprived of any opportunity for education. On the other hand, city superintendents complain, according to the bureau's investigators, that many unnecessary country schools are maintained because of the present system of distributing county money in proportion to the number of teachers.

In regard to hygiene and sanitation it was found that in Wyoming, as in rural schools elsewhere, hygienic and sanitary requirements were largely neglected. Over 73 per cent of the schools reporting are heated by ordinary stoves, about 10 per cent by jacketed stoves, and the remainder by furnace or steam. Relatively few of the rural schools of the State are properly lighted, the county schoolhouse usually being of the box-car variety with windows on both sides or on three sides. Little attention is paid to beautifying the school grounds in the rural school districts, and there are practically no yards suitable or equipped for play except in cities and consolidated schools. Less than a fourth of the schools have water on the school grounds, and in four counties none of the schools have water. In many cases the teacher and children carry water for drinking long distances, often in open pails left uncovered throughout the day. In some districts no toilets are supplied, and in many cases where they are supplied they are, according to one local investigator, "dens of filth and neglect; they are not scrubbed, and pits are not cleaned or disinfected. Often the pits are full to overflowing, and often there are no doors." Over 50 per cent of the total number of outbuildings were reported as poor or in need of repairs.

Wyoming presents a special problem in school enrollment and attendance. It is impossible to obtain reliable data relative to the percentage of enrollment. The United States Census for 1910 reported 35,776 children from 6 to 21 years of age in Wyoming, with 64 per cent enrolled in school; the county superintendents' reports make the figures much higher. The seriousness of the problem is indicated by the low average number of days attended by each pupil as given in the county superintendents' reports. In a few rural districts schools are maintained but two months, in others three, four, or five months, and a six months' term is relatively prevalent. The bureau's report points out that practically all cities and towns maintain schools for 9½ months, and that 9 months (180 school days) is rightly regarded as the minimum term in any city district. "The variation indicates that gross injustice is suffered by some children." Even in a county in which the minimum length of term is 6 months, or 120 days, the average number of days actually attended by each child enrolled is but 89. The report says, "Schools in this country are evidently not holding pupils in school during the full term, even when the term is a

short one, and, consequently, it is evident that the attendance law is not being enforced. The school term should be increased throughout the State to 180 days, and schools should be so respected in the various communities and should so appeal to the interests of the children that all those enrolled would attend regularly, except when kept away because of illness or other unavoidable reasons."

The point is made that regularity of attendance influences the cost of schooling; that if the attendance were to be better for each district the actual cost per district would be no greater than now, the per capita cost smaller, and the educational results far more satisfactory. The number of children of high-school age not enrolled in any high school is large, especially in the rural districts. Only 9 per cent of the total school enrollment is in high schools, and probably not more than 5 or 6 per cent of the total enrollment in rural communities is in high schools. The report points out that vocational subjects receive little attention in the Wyoming high schools; that while here and there attention is given to fitting boys and girls for a place in industrial life and an effort made to give some kind of vocational guidance, no systematic State-wide effort has been made "either to encourage a greater number of high schools or to assist in bringing these which now exist nearer to the industrial interests of the people."

The bureau undertook a careful study of the teaching corps. It was found that the State of Wyoming recognizes eight different kinds of teaching certificates. The report shows that not only are the certificates granted in a haphazard way, but that a large number of teachers holding no certificates are employed each fall in the expectation that there will be no difficulty in securing certificates later. More than half of the teachers of the State hold second or third grade certificates, or none at all, and 10 per cent hold temporary certificates, or none. The professional status accordingly is low. It can be raised, according to the bureau's report, by legislation requiring of all teachers after a certain date a definite amount of professional training as a requirement for any type of certification. Fifty-four per cent of the total number of teachers report no professional training of any kind; indeed, it is brought out that at least half of the teachers of the State have not completed a high-school course, and many have gone to teaching directly from the eighth grade. Nearly one-fifth of the teachers reporting were teaching their first year. The remaining teachers gave as their experience from 1 to 40 years.

Under the discussion of instruction as revealed in the investigation of Wyoming the bureau points out the possibilities of rural leadership on the part of the rural school-teacher. "The school," says the report, "is an isolated institution rather than a vital part of the community's life. The teacher comes into the community for a year, is a

passive observer only, then moves on to another field, with no apparent desire to enter the life of the people or to exert any influence more lasting than is left by the routine work of the schoolroom." In this connection the bureau recommends a better method of selecting teachers; trained, experienced supervisors to direct the work of the teachers now in service; centralization of administrative authority, and better living conditions for the teachers.

Wyoming is especially in need of adequate supervision for its country schools, according to the bureau's report, because of the large numbers of inexperienced and untrained teachers, because of the great distances that isolate the teachers and schools, and because of the fact that the teaching corps is largely recruited from outside the State.

It is urged that the laws governing the election, salaries, powers, and duties of county superintendents, which were made many years ago, be revised to meet changing educational ideas and practices. The report emphasizes the point that "education has now become an established profession; the county superintendent must be an educator, not a politician, and must be selected because of professional fitness. So long as he is elected at a general political election every two years, depending for success upon his ability to get votes instead of on his ability to supervise schools, the position will not appeal to many competent persons trained in the educational field." Low salaries are the rule for county superintendents. The average salary for the State is $717 per year, as compared with an average salary for city superintendents in the six largest cities of $2,340.

A special section in the Wyoming report is given to the question of revenue for the support of the schools. Wyoming is credited with a higher property valuation for each school child than any State of the North Atlantic, South Atlantic, or South Central groups. There are 269 adults in Wyoming to bear the expenses of educating each group of a hundred children between the ages of 5 and 18 years, a larger number than any other State in the Union except California. A strong argument is made for State support of education. "It is evident," says the report, "that if local taxation alone is to be depended upon for school support, there can be no equality of burdens for the taxpayer except at the expense of school facilities. But education is a State function as necessary to the preservation of the State's integrity and progress as are the capitol building and the legislature itself. The State must therefore devise means to equalize educational opportunity and expense within its borders." In discussing the inequality of the present system of taxation three questions are asked: (1) Is the revenue provided sufficient to insure at least reasonable minimum school facilities? (2) Are the provisions for raising and distributing it equitable? (3) Are the several units

from which funds come—State, county, and school district—all bearing their proper share of the burden? The first question is answered by showing that Wyoming in 1912–13 spent less per capita of school population than eight other Western States. Some improvement was made in 1913–14, but the State was still near the bottom of the list.

The final section of the report discusses movements in other States as a background for special recommendations for Wyoming. The following summary of recommendations is significant in connection with other State surveys made by the Bureau of Education:

I. Provision for a State board of education as the responsible head of the educational system, the executive officer of the board to be the State superintendent of public instruction.

The board should be composed of men and women of affairs, scholarship, business ability, and broadmindedness, but not necessarily engaged in education; they should be appointed from various parts of the State by the governor with the approval of the senate, or elected by the people at large. A satisfactory number of members is seven, the term of office eight years, not more than two terms expiring each biennium. In this way a continuity of service and freedom from political interference may be secured. The members should serve without pay (or receive a small per diem), but should be paid their actual traveling and other expenses in attending board meetings. Four fixed meetings should be held each year and provision made for special meetings on the call of the governor, the State superintendent, or a majority of the members.

II. Reorganization of the State department of public instruction.

The department should be strengthened (1) by having the functions, powers, and duties of the State superintendent of public instruction clearly defined by legislative enactment; (2) by relieving the State superintendent from service as secretary of the State board of charities and reforms, so that practically his entire time may be given to the school system; (3) by making the position appointive instead of elective; (4) by adding to the department at least two efficient field agents to act as inspectors of secondary schools, vocational schools, and special schools receiving State aid, and as advisers and assistants to the State superintendent in the performance of his duties; (5) by providing an annual State appropriation to be expended by the State board of education on the recommendations of the State superintendent for assisting in paying the salaries of district supervisors employed in the counties, and for assisting industrial and vocational education, and for similar purposes that may be authorized by law.

III. Nonpolitical school officers.

The State superintendent of public instruction and his assistants should be selected and appointed by the State board of education, and the county superintendents by county boards of education in a manner similar to the method of selection and appointment of city superintendents by city boards of education and of college presidents by college boards of trustees.

These State and county education officers should be selected for their particular fitness for the positions to be filled, regardless of whether or not they are residents of the State or of the county which they serve. Appointment should be for specified terms sufficiently long to insure the most effective service, the boards having power to remove from office for inefficiency or malfeasance. State and county officers so appointed would become the actual heads of the State and county systems, first in responsibility and opportunity, and able to count on long and definite terms of office by rendering good service.

IV. Provision for expert supervision of rural schools.

Each county with more than 40 teachers, not including those in supervised city systems, should be divided into supervisory districts containing approximately 30

teachers each and a supervisor for each district appointed, whose entire time should be devoted to the supervision of the schools in his district. The salary for the supervisory work should be paid by the State and by the county in equal amounts. Minimum general education, professional education, and successful teaching experience should be required. The supervisors should be directly responsible to the county superintendent for their work, should be appointed on the recommendation of the county superintendent, and hold office while giving satisfactory service. The supervisory districts should be created and the supervisors appointed by a county board of education, and should remain in office until resigning or until removed by the board for cause. Each county superintendent, when eligible as far as general education, professional education, and successful teaching experience is concerned, should serve as supervisor of one district in his county and should receive the extra pay for this work.[1] This would increase the income of county superintendents, so that the position would be more desirable than at present.

V. A county board of education.

To divide the county into supervisory districts and appoint supervisors as recommended above, provision should be made in each county for a county board of education. The board should appoint the county superintendent also. The board should consist of five persons, not more than two of whom should be residents of incorporated cities with independent systems employing school superintendents. The members should be elected by popular vote for six-year terms, two of which would expire each biennium. Members should serve without pay, but should receive necessary expenses.

VI. Independent supervision of city districts.

It should be provided that incorporated city districts employing superintendents devoting half or more than half of their time to supervision may, on the approval of the State board of education, be independent of the authority of the county board and of the county superintendent in so far as the administration of the schools is concerned. They should be required to make to the county superintendent such reports as may be required by the county board and the State department of education; also before receiving any portion of the State or county funds to submit to the county board satisfactory evidence that schools have been maintained the minimum required term and taught by teachers holding certificates issued by the State department, and that all other regulations of the State have been complied with.

VII. A more equitable distribution of the burden of the support of education.

Provision should be made for a constitutional amendment so that the State school funds may be distributed to the counties, one-half in proportion to the number of teachers employed and one-half on the aggregate daily attendance, and reapportioned in the county as the legislature may determine from time to time as conditions change. Apportionment of the State funds by the counties to the districts on the same basis suggested would be advisable until conditions change materially.

VIII. Requirements for a higher standard of general and professional education for teachers.

The legislature should fix an early date after which no teacher should be engaged who has not an education equivalent to graduation from a four-year high school and a minimum of professional work in some approved school. The requirement for the professional preparation should be increased, so that on and after the 1st of September, 1922, it will include graduation from a two-year course in a standard normal school whose entrance requirements presuppose four years of standard high-school work or its equivalent.

---

[1] This is suggested as a temporary arrangement, to be in effect only until the constitutional limit to county superintendents' salaries is removed.

IX. Provision for professional training for teachers.

Provision should be made for securing a larger proportion of professionally trained persons to teach in the public schools. At present the State university is the only institution in the State which gives such professional training.

X. Reorganization of the plan of certification of teachers.

Provision should be made for transferring to the State board of education the administration of the certification of teachers. A division of the department of education should be created as a teachers' employment and certification bureau. The division should be under the immediate charge of a chief appointed by the State board on the recommendation of the State superintendent. It should have on file a register of available teachers with qualifications, etc., and be ready to recommend teachers for vacancies upon request. It should hold teachers' examinations for certificates or examine credentials relative to their education, training, and experience, and recommend candidates to the State superintendent for certification.

The rules and regulations relative to certification requirements, the kinds of certificates to be issued, and the requirements for each certificate should be left entirely to the State board of education, acting upon recommendation of the State superintendent.

XI. Provision for vocational education.

Vocational courses in agriculture, household science, and the more usual trades for both boys and girls should be established in special departments in selected high schools in the State. This work should be under the direct supervision of the State department of education and should receive annually from the State department special State financial aid, as experience in other States has shown that satisfactory vocational work will not be established otherwise, and to be satisfactory must be properly supervised.

XII. Control of special State institutions by the State board.

The State School for the Blind and Deaf, at Cheyenne; the Wyoming School for Defectives, at Lander; and the Wyoming Industrial Institute, at Worland, should be under the complete administrative control and management of the State board of education.

COLORADO.

The bureau's part in the Colorado State educational survey was confined to an investigation of the administration and support of public elementary schools. The surveyors found that Colorado's greatest need in public education was a "type of centralized organization now wholly lacking, which would furnish the leadership and guidance necessary to insure State-wide progress." To accomplish this it is urged that there be a constitutional amendment to abolish the present ex officio State board of education, a constitutional amendment to convert the offices of the State superintendent of public instruction and of the county superintendents of schools from political elective offices to appointive ones, legislation to confer upon the State board of education and the State superintendent of public instruction enlarged and clearly defined functions with power to perform them, and legislation to adopt the county as the unit of support in the management of schools outside of cities.

It is pointed out that a board constituted as the Colorado board is can not be in fact an effective head of an educational system.

Definite powers and duties are marked out for a new type of State board of education. The office of State superintendent is discussed in relation to the experience in other States, and it is shown that Colorado, like most States having elected State superintendents of education, pays a much lower salary than the office warrants. "If Colorado adopts the appointive method," says the report, "it should provide an adequate salary—at least as great as that paid to the presidents of the State institutions of higher education." Colorado's salary for the State superintendent of $3,000 per year is compared with the salaries paid in other States having as chief school officers men selected because of professional training, educational experience, and fitness for the position, these salaries running from $10,000 in New York and New Jersey to $4,000 in New Hampshire. Eighteen States pay the same salary as Colorado and eight States pay less. The leadership present-day education demands of a State department of education is impossible in a State where the chief school officer is poorly paid, lacks real authority, and has few assistants to help him do his work. Colorado, according to the Bureau's report, has a smaller force in the department of education than any other State with so large a school population. The law gives the State superintendent little real authority, and in practice no State superintendent has attempted to exercise actual supervision either over the superintendents or the schools. "In fact," says the report, "school authorities do not feel that the State superintendent has any jurisdiction over them; even county superintendents quite generally seem to feel that the authority of the State superintendent is limited to requiring annual reports. Even these annual reports are obtained with difficulty, although the law states that they must be submitted on or before the first Tuesday of each September with data for the preceding school year."

The appointive plan is also urged for county superintendents. The point is emphasized that in 23 States of the Union the county or other rural superintendents are now appointed officers, and attention is called to the results of a recent study made by the Bureau of Education relative to the education, training, experience, and terms of county superintendents, which show that the term of service in States which they are appointed is much longer than in the States in which they are elected, and that men and women with more general education and teaching experience are selected in appointive States for county superintendents than in those States in which they are elected by popular vote. The survey report summarizes the section on "General administration of the school system" as follows:

> Colorado's present system lacks the necessary centralization to insure State-wide progress. The present ex officio board of education performs no function that could not be done as well by the State superintendent alone. There is need for a different

sort of board, one created by law as the actual head of the school system and composed of members appointed or elected on account of their peculiar fitness for the functions to be performed. This board should determine educational policies to be carried out by its executive officer.

The present State superintendency is a political office; in filling it little regard is paid to professional training and experience in educational work. The powers and duties now conferred upon the office are not definite or broad enough to make it the important factor in the State school system that it should be. Few assistants are employed; an inadequate salary is provided. The chief State school officer should be selected for personal fitness by the State board of education with the same degree of care and in the same manner as the presidents of the State institutions of higher education are selected.

The State board of examiners performs no functions that could not be better performed by the State department of education. The entire system of certification of teachers is inadequate to the present needs.

Opportunities for vocational education are greatly needed in the State, particularly for the trades and industries, agriculture, and housekeeping. Experience in other States seems to show that much progress may be expected only when special State aid is provided.

The present system of local management (as well as of support) is very unsatisfactory. Colorado, in adopting a larger unit for management, will be doing what more than half the States have already found it necessary to do. The county system would remedy the principal defects of the present system; it would provide also a means of obtaining for the country schools a professional head in the person of a county superintendent no longer a political officer but a professional school officer, selected with the same care as city superintendents are selected in the best cities.

Under the topic "Revenue and support" the surveyors find that the State school fund furnishes approximately 7 per cent of the total amount expended for the support of the public schools in the State. In the opinion of those making the survey the State should furnish from 30 per cent to 40 per cent of the amount. It is found that the counties furnished 22 per cent of the total amount expended for the support of schools, whereas, in the judgment of the surveyors, the counties should furnish, in cooperation with the funds supplied to the State, practically the entire amount necessary for maintenance of schools of minimum standard. That there is need for a State fund to equalize the burden among the counties is shown by the wide variation in taxable valuation per child, this ranging from $1,822 to $22,674. Distribution of State funds on the census basis is objected to because it has no relation whatever to the efforts which counties or districts are actually making in education. In the judgment of the surveyors, aggregate attendance and number of teachers employed should be the basis for distribution of State funds. Colorado appropriated only $74 per teacher employed in 1915–16, as compared with $200 per teacher in Wyoming and $325 per teacher in Arizona.

Investigation of school buildings and equipment showed that of 1,267 Colorado school buildings reported, 76 per cent were one-room

rural schools, and that, although 60 per cent of the buildings were new, lighting, heating, ventilating, water supply, and similar fundamentals of proper sanitation have received scant attention. Eighty-one per cent of the schools report insufficient or cross lighting; reports from six counties do not include even one school with any provision for ventilating other than windows and doors; there were a few buildings heated by jacketed stoves, steam, or furnace; there were an insignificant number of school plants with satisfactory water supply and drinking equipment, and cloakrooms with clean interiors were found in fewer than half the buildings reported. Only in rare instances were playgrounds furnished for rural schools. Toilets were in very bad condition. There are many well-kept, sanitary, and attractive school buildings in the State, according to the surveyors, and many of the poorest possible quality, with examples of both varieties often existing in adjoining districts. The report says: "Colorado's greatest need in the matter of rural-school buildings seems to be that the State or county should adopt some settled and economical policy of improvement for present conditions and certain minimum standards for the future."

Serious errors exist in the Colorado attendance reports, so it is difficult to state reliably the conditions of school enrollment and attendance. In 33 counties 4,845 children, or 12 per cent of the census enumeration between 8 and 14, are reported not enrolled in school. The length of school term varies greatly among the different counties. A term of less than 100 days was maintained by 37 districts, from 100 to 110 days by 13 districts, from 110 to 120 days by 12 districts, and from 120 to 140 days by 240 districts, making a total of 284 districts that maintain school for an average term of less than 140 days.

Of the 3,627 teachers in Colorado outside of cities to whom questionnaires were sent concerning education, professional training, and teaching experience, only 1,563, or 43 per cent of the number, replied. "Such an attitude," comment the writers of the survey report, "toward legitimate requests from an investigating committee for necessary information results in large measure from the fact that there is no real school system and no centralization of educational authority within the State." Of the teachers reporting in Colorado, 23 per cent have a general education of less than four years above the elementary school or the equivalent of a high school. Seven per cent of the teachers of the Colorado rural schools have elementary education only; 16 per cent have some secondary education, but not the full four years; 35 per cent have four years of secondary education; 34 per cent have some higher education, but not four years; and 8 per cent have four years' higher education. Colorado has a much larger percentage of untrained teachers than the United States

as a whole. The majority of teachers apparently hold second-grade certificates. The average salary of the teachers is $563 per year. This situation emphasizes the need for adequate supervision of rural schools, and, the report adds, "the supervisor must be an educator, not a politician, and must be selected because of professional fitness." A summary of the findings on instruction shows that teachers are selected with little regard to educational and professional qualifications and experience; that the course of study is not adapted to the organization of the one-teacher school; that there is practically no supervision worthy of the name, and that consolidation, the most necessary reform for efficiency and economy in the conduct of rural schools, has made little progress in the State, only 12 of the counties having consolidated schools. The following is a summary of the recommendations of the report:

(1) RECOMMENDATIONS RELATING TO GENERAL ADMINISTRATION.

(1) The present ex officio State board of education should be replaced by a board consisting of seven members appointed by the governor with the approval of the senate, or elected by the people on a nonpartisan ballot. They should be men and women of scholarship and business ability, not necessarily engaged in education, and should be selected from various parts of the State. The term of office should be eight years, not more than two terms expiring each biennium.

(2) The State superintendent of public instruction should be selected and appointed by the State board of education. The county superintendents of schools should be appointed by county boards of education. Both State and county superintendents should be selected because peculiarly fitted by experience, training, and education for the duties of these offices, and should be assured of tenure during satisfactory service.

(3) The county should be the unit of administration for all schools outside of cities and towns which employ special superintendents devoting their entire time to administration and supervision. The management of county schools should be vested in a county board of education consisting of five or seven members, elected at large from different sections of the county. The term of office should be at least six years with not more than two terms expiring any biennium.

(4) The State board of education for the State, and the county boards of education for the counties, should confine their activities largely to inspection and legislation, their educational policies being carried out by their executive officers, the State and county superintendents, respectively. The position of these boards in relation to the State and county schools, respectively, should be similar to that of the board of regents to the State university.

(5) The State board and the county boards should have their functions, powers, and duties specifically stated in the laws of the State.

(6) The State board of education should have control of the certification of teachers under regulations fixed by law. The entire system of certification should be revised. The State board of examiners should be abolished. A division of certification should be established in the State department of education. This division should be also a teachers' employment bureau rendering service to teachers and to school officials.

(7) The State board of education should assume the duties now conferred upon the boards of control of the five State educational institutions for special classes: State Home for Dependent and Neglected Children, Industrial School for Boys,

Industrial School for Girls, Home and School for Mentally Defective, School for Deaf and Blind.

(8) The State superintendent of public instruction should have an adequate office force and several field assistants. The assistants, as well as the State superintendent, should have high professional qualifications and educational experience and should act as advisory agents to school officers throughout the State.

(9) The local districts should retain their organization, the trustees acting as custodians of the school property and as advisory agents to the county boards.

(10) All high schools except those in the independent city districts should be under the control and management of the county board of education. The county high-school boards should be abolished. Union high-school districts should be made elementary districts, the high schools bearing the same relation to the county system as the elementary schools.

(2) RECOMMENDATIONS CONCERNING SCHOOL SUPPORT.

(1) The State should provide by special appropriation an amount large enough to make its annual apportionment fund approximately one-third of the total expenditure for maintenance of schools. This arrangement should continue until the income from the permanent fund and from school-land rentals is sufficient to supply one-third of the total expenditure.

(2) The State apportionment fund should be distributed to the different counties in a manner that provides a fixed amount for every teacher employed, the remainder apportioned on the basis of aggregate attendance. Distribution on the census basis has no relation to school needs or to the effort made by counties and districts to provide educational facilities.

(3) The State should give financial aid to encourage the establishment of vocational education. Funds for this purpose should be derived from direct appropriation and not be taken from the apportionment fund. Schools receiving such aid or other form of special State aid should be under the general supervision of the State board of education.

(4) The county as a unit should contribute an amount large enough, with the State apportionment, to maintain all schools in the county at least the minimum term and at the minimum salary required by law. The county board of education should fix school standards and qualifications for teachers engaged in schools receiving State and county funds, in order that all children may have approximately equal educational opportunities.

(5) The county school tax should be levied on all taxable property in the county and should be divided between the cities and the county district on the basis of the number of teachers employed and the aggregate attendance. The county board should expend the money assigned to the schools under its jurisdiction according to their needs and in order to serve best the educational interests of all childern concerned.

(6) The local districts should have the power and should be encouraged to levy local taxes for special purposes in advance of the minimum requirements of the county board of education, and should raise money by taxes or bonds for all permanent improvements.

(3) RECOMMENDATIONS OF GENERAL APPLICATION.

(1) The educational qualifications of teachers should be increased each succeeding year, until by 1922 the State should require as a prerequisite: For elementary teachers, general education equivalent to four years in a standard high school, and in addition the equivalent of two years' professional training in a standard normal school or college; for high-school teachers, four years of education in a standard high school, and in addition four years in an approved college or university including professional courses in education.

(2) The State should enlarge and extend its facilities for training teachers, especially for service in rural schools. Additional normal schools should be established

and located in places accessible to prospective teachers from all parts of the State. There seems to be immediate need for two more such schools. No additional board of control is necessary.

(3) The normal institutes should be abolished and six-week summer schools substituted in at least five places in the State, selected with a view to general accessibility. This arrangement would serve as an immediate and temporary expedient for the extension of facilities for training teachers and would undoubtedly greatly increase the total number in the State receiving the benefit of summer school instruction.

(4) Living conditions of rural teachers should be improved and salaries raised, so that trained and capable teachers for rural schools may be secured and retained.

(5) Assistant supervisors should be furnished for county schools, to work under the general direction of the county superintendents, to insure better teaching and reasonable uniformity in regard to textbooks, courses of study, and methods of organization and management.

(6) Schools should be consolidated wherever practicable and transportation of children provided when necessary, in order to secure better educational facilities than the organization of one-teacher schools permits.

(7) A definite policy which would result in more convenient and sanitary buildings should be adopted. The employment of a State architect is suggested as a possible method of securing this end.

(8) More regular attendance should be secured. As a means toward this end the following are suggested: An adapted course of study, better teaching, and the enforcement of the compulsory attendance law in rural districts by the county boards of education.

(9) The law providing for free textbooks should be mandatory rather than optional, and lists of approved books should be issued by the State department of education to assist school officers to make better and more appropriate selection. These lists should include only such publishers as have complied with the State law and should give the net prices.

UNIVERSITY OF NEVADA.

The bureau's report of the University of Nevada describes the situation in which the university found itself in the fall of 1916. Following a period of controversy in which the administration of the university had been bitterly attacked in the public press, the legislature had provided in 1915 for an educational survey commission, and in July, 1916, the governor of Nevada requested the United States Commissioner of Education to undertake the survey. The bureau's report compares the system by which the University of Nevada is governed and controlled with the boards of regents in other States, pointing out that public administrative boards consisting of from 7 to 15 persons have usually proved most successful; that public business can be conducted most expeditiously and efficiently by a group small enough to sit about a single table and discuss without formal parliamentary tactics; and that the group should be large enough to represent different elements and opinions in the body politic. The report "unhesitatingly indorses the appointment of university regents by the governor with confirmation by the senate as against popular election," asserting that—

> The weakness of popular election must already be painfully apparent to the intelligent citizens of Nevada. The drawback which overshadows all others is that the university is thus drawn unavoidably into the turmoil of partisan politics.

That the development of the State university and the character of the instruction it offers are conditioned, in a large degree, by the social needs of the State is emphasized in a section of the survey report on "Higher education in Nevada and the facts which condition it." The report points out that "in a certain sense there is and can be no common type of State university nor even an ideal State university apart from its environment. Every State university is more or less a product of local conditions and local exigencies. * * * The two leading industries [in Nevada] are agriculture and mining. * * * The organized public effort of the State must for a long time to come be focused on a full development of its natural resources."

Nevada, according to the bureau's investigation, is one of five States in which the only institutions of collegiate rank are State institutions. The State has not separated its higher educational enterprise into several parts, as so many young and sparsely populated States have been led into doing, but has succeeded in keeping all branches consolidated in a single institution, thereby preventing an expensive and irritating rivalry. The survey committee approves cordially of this centralization and advises against the proposal sometimes advanced that the college of agriculture be separated from the university and established in another part of the State.

Examination of financial support shows that Nevada ranks forty-first of the States on the basis of the amount spent on higher education for each $1,000 of wealth. This constitutes a relatively light strain on the total property of the State. While Nevada has done well, therefore, being a State of small population with many urgent demands for its public funds, to develop and maintain a university of reputable grade, the State has been much less liberal with support than many other States have been.

In higher educational enrollment Nevada compares very favorably not only with the Western States but with the other States of the Union. The per cent of the whole number of pupils enrolled in the university is 2.66. The only Western State having a greater percentage of the whole number in higher education is California, with 2.86 per cent, and only three other States in other sections of the country—Massachusetts, Nebraska, and Wisconsin—report a larger proportion of the whole number of pupils enrolled in higher education. It develops, however, that this relatively high enrollment is not due so much to the fact that the citizens of the State are availing themselves of higher education as that Nevada is furnishing higher educational opportunities to a disproportionately larger number of citizens from other States, notably California. In the first semester of the year 1915–16 approximately 32 per cent of the total enroll-

ment came from outside of the State and 21.7 per cent were residents of California.

A special section is given in the bureau's report to the University of Nevada and the public service, the legislature of 1915 having consolidated into a public division all the various extramural services which had from time to time been more or less directly connected with the university. The report says:

> It is commonly recognized that the State university has a threefold function with relation to the State. It must give liberal and vocational instruction through the medium of organized courses of study for students in residence; it must carry to communities and individuals who can not come to it for formal teaching information and instruction through the medium of its extension service; it must assist in the solution of the problems relating to the life and activities of the State and add to the sum of human knowledge through research. The modern State university is not therefore merely a local institution for the instruction of resident students, as perhaps many citizens are still inclined to believe.

The question of the academic standards of the University of Nevada is discussed pro and con. The printed requirements of the university are in accord with the best principles and practice. The real test, however, of a university's standards is not what it says it requires, but what students must actually do to get in and stay in. After reviewing carefully the records of all students entering in 1915, and subjecting to a somewhat less detailed scrutiny the records of those admitted in the years immediately preceding, the survey committee shows that the university's requirements for admission to *regular* standing are conscientiously enforced, but that a large number of *special* students are admitted without the necessary preparation. A large proportion of the total number of special students (28.8 per cent) come from outside the State. The largest proportion of special students were registered in 1911–12. There has been a particularly sharp falling-off in the percentage of special students in the first semester of the current academic year. The committee felt, however, that there should be a reduction in the number of special students attending the university.

There are special chapters also on the educational administration of the university, the training and experience of the faculty, the work and remuneration of the teaching staff, costs, and the organization and needs in the separate divisions of the university. The committee recommended that in making future additions to the teaching staff the university demand that instructors shall either have had collegiate training, or have done advanced graduate work, or both. It further recommended that an instructor be promoted to a permanent position in the university only when his interest and scholarship have been evidenced by the attainment of an advanced degree, by a worthy publication, or by exceptional success in teaching.

SAN FRANCISCO.

The survey of the public-school system of San Francisco was undertaken in December, 1915. This survey was made by a group of specialists of the Bureau of Education, assisted by several educators from outside. The report as published will comprise 16 chapters relating to different phases of the school work. Since the San Francisco survey is one of the most important and comprehensive undertaken by the bureau, it will be helpful to give certain of the findings made in the survey, together with the presuppositions upon which they are based.

The report points out that the public schools of San Francisco can not be happily or successfully administered until the present method of administration makes way for a plan of control which will permit the educational forces in the city to do their work efficiently. This change involves changes in the State constitution and city charter, the change in the State constitution being necessary to relieve the county of San Francisco from the necessity of electing a county superintendent of schools. The charter should be so amended as to provide for the creation of a board of education which should be independent of all other branches of the city government and which should have the full control and management, through the superintendent of schools and his assistants, of all matters relating to public school affairs in San Francisco, the members of the board to serve without compensation. The board of education, the report points out, should be empowered to make its budget and to determine the amount of the school tax levy under the limitation of the State law. The following are further recommendations:

The charter of San Francisco should be amended, further, to establish beyond question the proper relation between the board of education and the superintendent of schools, as its technical expert, and all of the board's employees under him.

The task of amending the charter and reorganizing the public-school system should be undertaken independently of personal considerations or expediency, and solely in the light of fundamentally sound principles of organization and administration.

GENERAL.

The board of education as a corporate body should have all the constitutional and statutory powers which are conferred upon similar corporate bodies by the constitution and the general laws of the State of California.

The charter should be amended to permit the tax levy to exceed the minimum tax provided by State law under the discretion of the board of education for the meeting of proper emergencies.

A new department should be created to have charge of buildings and grounds, including planning, erection, maintenance, and repair, and supervision of the engineer and janitorial staff.

The board of education should reorganize its system of accounting by creating a department of accounting and statistics, which should also be responsible for purchasing and distributing equipment and supplies.

All playground work and all recreational activities under public auspices in the city are educational in their intent and purpose and should be under the full control of the board of education.

The official proceedings of the board of education should be published and made available for the inspection and reference of all officers and heads of departments of the school system and for the information of the public.

THE BOARD OF EDUCATION.

Members of the board of education, nine in number, representing the city at large, should be elected by the people of the city and county of San Francisco or appointed by the mayor and confirmed by the board of supervisors, or appointed by the judges of the superior court; should serve without compensation and should give to the duties of their office such time as the business of the board of education may require. Members of the board should be not less than 30 years of age and should have been residents of the city and county of San Francisco for at least five years prior to their appointment.

The board should never be so constituted as to consist of more than four members of the same political party. The term of office of members of the board should be for six years, three members being appointed every two years after the first organization.

The board should organize by electing one of its members president, by electing a paid secretary who shall not be a member, and by creating two standing committees of four members each, one on business and one on education.

The board should hold regular meetings once each month and special meetings at such times as it may determine.

The board of education should elect a superintendent of schools and determine the amount of his salary. The term of office of the superintendent should be for at least four years.

The board should elect five deputy superintendents on the written recommendation of the superintendent, and one additional deputy superintendent for each 20,000 pupils in average daily attendance over and above the base number of 45,000 pupils. One deputy should be placed in charge of all activities connected with the department of buildings and grounds; one deputy should be placed in charge of the department of accounting, statistics, and supplies; the remaining deputies should be assigned to such administrative, professional, and supervisory work as the superintendent may determine. The term of office of the deputy superintendents should be for at least four years, and they should receive such salary as the board of education may determine.

All other persons in the employ of the board of education, in such numbers as may be necessary to a proper carrying on of the work in all departments of the public-school system, should be elected by the board, on the initiative and written recommendation of the superintendent of schools.

The board of education should have the right to dismiss any school officer or any other employee of the board for insubordination, or immoral or unprofessional conduct, provided the charges against such officer or employee shall first be formally presented to the board by the superintendent of schools, after due investigation, and provided further that such charges shall be passed upon finally by the board after due hearing. The board should also have the right, on the written recommendation of the superintendent of schools, to dismiss without a hearing any school officer or other employee for evident unfitness to perform the duties of his office or position.

The board of education should have the power to establish, organize, and maintain such classes and types of schools and departments of special work as it may deem necessary, and to change, modify, consolidate, or discontinue the same as the interests of the public-school system may require.

The board of education should have the power to create or abolish positions in connection with the educational, business, and financial departments of the school system as it may determine under the limitations of the State law, and to fill such positions on the initiative and written recommendation of the superintendent of schools.

THE SUPERINTENDENT OF SCHOOLS.

The superintendent of schools should be definitely and officially recognized as the technical expert of the board of education, employed by the board as its advisor and chief executive officer, and charged with complete control of and responsibility for the conduct of the school system under the board and for carrying out the policies determined upon by the board.

Upon the recommendation of the superintendent of schools, the board of education should adopt such rules as may be necessary to define clearly the status of all employees.

The superintendent of schools should be free to determine the assignment of duties among his deputies and other assistants as the best interests of the service may require from time to time.

NEW ACTIVITIES.

The board of education, in accordance with plans prepared by the superintendent of schools, should provide for the introduction or further extension of those newer types of public-school activities which have not yet received full practical recognition in San Francisco.

The following new special departments should be created: (1) Evening schools and school extension; (2) school gardens, nature study, agriculture, and city beautification; (3) attendance; (4) writing.

Existing special departments should be continued or reorganized, as follows: (1) The department of drawing, to be called the "department of art education"; (2) the department of music, as now; (3) the department of home economics, to be called the "department of home economics and vocational subjects for girls"; (4) the department of manual training, to be called the "department of manual training and vocational subjects for boys"; (5) the department of primary grades, to be called the "department of primary and kindergarten instruction"; (6) the department of physical education, athletics, social and lecture centers, to be called the "department of health." Activities of the social and lecture centers should be transferred to the new department of evening schools and school extension. The function of the new department of health should be enlarged.

Each of these departments should have at its head a capable, technically trained officer, called director, who should be given such technical assistants, called supervisors, and such clerical assistants as may be necessary for the effective performance of the duties assigned.

EFFICIENCY OF THE STAFF.

The board of education should have the right, on the recommendation of the superintendent of schools, to set the standard of qualifications to be required of those seeking positions in the educational department, and to refuse to admit to examination any person who does not fully meet the requirements established.

The board of education should create a board of examiners, consisting of the superintendent of schools and his deputies, the function of which should be to examine and certificate all employees who are required by law to be holders of proper certificates before being eligible to employment in the school system.

The superintendent of schools should establish eligible lists of teachers according to rules and regulations of the board of education.

A plan of tenure of office of employees on the educational staff should be adopted by the board of education upon the recommendation of the superintendent.

The superintendent of schools should have the authority to recommend, and the board of education should have the power to confirm, the appointments of persons best qualified for the service to be performed, irrespective of the places of residence of appointees.

A record of the efficiency ratings of all employees should be kept on file in the office of the superintendent of schools.

Upon the recommendation of the superintendent of schools, the board of education should make full use of the State law providing for those employees who, on account of long service or advanced years, have reached a state when they should be retired from the schools.

The superintendent of schools with his staff of deputies and special directors should provide that educational and inspirational leadership which will insure the continued training and professional advancement of teachers and other employees while in the service.

Special recommendations are also made regarding finance, school buildings and grounds, the elementary schools, civic education, music in public schools, instruction in art, home economics, manual training, vocational education, education of the immigrant, and school-directed gardening.

As in the North Dakota survey,[1] certain "presuppositions" are made regarding the school system. These are as follows:

1. That the ideal of education in a democracy demands (*a*) that in any city there shall be a single unified system, embracing all schools supported by public taxation; (*b*) that the control of the schools shall be vested in a board of school trustees responsible directly to the people; (*c*) that the fundamental purpose of the schools is to produce intelligent, loyal, and independent citizens; and (*d*) that the scope of the task of the schools is nothing less than the education of all the children of all the people with substantial equality of opportunity.

2. That each type of school (elementary, secondary, special) has its own particular function to perform, and finds its greatest usefulness in rendering to the people its own peculiar service.

3. That all these forms of service are equally worthy and dignified if performed equally well.

4. That the people of the State and city are both willing and able to provide all funds that may be necessary for the adequate support of the public-school system and the legitimate work of any part of it.

5. That the schools exist primarily for the children, and not for officers, teachers, or any other employees.

6. That the people of San Francisco desire the best service and the fullest possible returns from their public schools and are willing to make at any time such conservative changes in their organization, in the form and method of their control, in their courses of study, and in their methods of teaching as may appear clearly and certainly to be necessary or contributory to this end.

7. That the board of education, the superintendent of schools, and the civic organizations, at whose request this survey was undertaken, and all taxpayers and citizens of San Francisco desire to have such a full and frank statement in regard to their public-school system as will enable them to understand it in its main outlines at least, and such comprehensive, constructive suggestions for its improvement as will enable them to reorganize the system on a sound basis; to remedy its more important evils, correlate it with other educational agencies, adapt its work to the constantly devel-

[1] See p. 23.

oping life of the city, State, Nation, and the world; conduct its affairs wisely and insure it a vigorous and healthy growth.

8. That all who will read this report know that education is not as yet an exact science and that much of what is accepted as fundamental is not the result of scientific investigation and demonstration, but rather the concensus of opinion tested by personal observation and experience, and this opinion is constantly developing and changing.

ARIZONA.

The survey of the education system of the State of Arizona was made at the request of the State superintendent of public instruction, president of the university and the State Teachers' Association.

The public elementary and secondary schools were investigated by the specialist in agricultural education and rural school administration, the specialist in rural education, one of the assistants in rural education, the chief of the division of school administration, and the special agent in schoolhouse construction and sanitation. The State normal schools and the department of education at the State university were studied by the specialist in rural school practice. The State university was investigated by the specialist in higher education, assisted by President Livingston Farrand, of the University of Colorado.

III.

GENERAL ACTIVITIES OF THE BUREAU.

In the preceding sections of this report an attempt has been made to describe two emergent lines of activity of the bureau during the past year—special war duty and educational surveys. In a succeeding section (p. 71) an account will be given of educational conditions in the other warring countries with special reference to the effects of war on education. The present section outlines the general activities of the bureau during the year.

ORGANIZATION OF THE BUREAU'S WORK.

There are six administrative divisions in the bureau, covering the usual routine of executive management, correspondence, publications, statistics, and library, together with the administration of schools for natives in Alaska. The remaining divisions deal with separate educational fields, as follows: Higher education, school administration; rural schools; vocational education; kindergartens; home education; immigrant education; civics; education of racial groups; home and school gardening; commercial education; school hygiene; community organization, and foreign educational systems. Four of these divisions—kindergarten, home education, immigrant education, and racial groups—involving altogether 14 employees in Washington, are maintained in cooperation with the following organizations: National Kindergarten Association; International Kindergarten Union; National Congress of Mothers and Parent-Teacher Associations; National Americanization Committee; and the Phelps-Stokes Fund. These organizations have furnished to the bureau specialists and assistants in their respective fields, and the employees thus engaged have been appointed special collaborators in the Bureau of Education at the nominal salary of $1 per annum, given desk room in the office at Washington, and treated precisely as other employees working under the direction of the Commissioner of Education.

APPROPRIATIONS.

Congress appropriated for the bureau in 1916–17 the sum of $405,500. Of this, $150,500 was for salaries and general educational purposes and $255,000 for the special work for natives in Alaska. The following is a complete table of the bureau's appropriations.

SALARIES.

Commissioner	$5,000	
Chief clerk	2,000	
Specialist in higher education	3,000	
Editor	2,000	
Statistician	1,800	
Specialist in charge of land-grant college statistics	1,800	
Translators (2 at $1,800)	3,600	
Collector and compiler of statistics	2,400	
Specialists in foreign educational systems	1,800	
Specialist in educational systems	1,800	
Clerks and copyists (35, at salaries ranging from $720 to $1,800)	44,920	
Laborers and messengers (8, salaries ranging from $400 to $840)	5,080	
		$75,200

OTHER FUNDS.

Investigations of rural and industrial education	35,000	
Traveling expenses	3,000	
Books, etc., for the library	500	
Investigation of school and home gardening	5,700	
Collecting statistics for special reports	3,600	
Purchase of educational documents, etc	2,500	
Educating natives of Alaska	200,000	
Medical relief, natives of Alaska	50,000	
Support of reindeer stations in Alaska	5,000	
Printing annual report of commissioner	25,000	
		330,300
Total		405,500

For 1917–18 there was an increase of $10,000 in the appropriation for rural and industrial education and school hygiene, an increase of $2,000 in traveling expenses, $1,800 in school and home gardening, and $12,500 in medical relief for Alaska.

At the close of the year 1916–17 there were 76 employees on the roll of the office in Washington.[1] There were 5 employees in the Seattle office of the Alaska division and 118 special collaborators other than those giving full-time service.[2] These are for the most part educators in various sections of the country, in State departments of education and elsewhere, who, in addition to their regular duties, keep the bureau informed as to conditions in their localities and are occasionally called upon by the bureau for special information. Of the 76 employees on the bureau's roll at Washington 28 hold administrative or specialist positions, 40 are clerks or stenographers, and 8 are classed as messengers and laborers.

Bureau salaries.—A glance at the table of appropriations shows some of the difficulties under which the bureau operates. The statutory salaries of the administrative officers of the bureau are

[1] Exclusive of 14 special collaborators who have desks in the Washington office. See p. 45.

[2] For a complete roster of the bureau's employees, including special collaborators, see the Educational Directory, Bulletin 1916, No. 43.

conspicuously low; they have remained unchanged for many years. The chief clerk of the bureau, who is the administrative head of the office and acts for the Commissioner in the latter's absence, receives $2,000. The editor, who must have, in addition to the technical editorial qualifications, a clear conception of Government policies and a broad knowledge of the special field of pedagogy, sufficient to enable him to review critically the work of highly trained specialists in the office and prominent educators outside is also paid $2,000. The specialist in higher education, whose business it is to judge of university and college standards, to report upon academic policies, and to analyze institutional management for the largest as well as the smallest college plants in the United States, receives a salary of $3,000—less than some of the smallest colleges pay their presidents, and hardly more than half the usual salary of university professors, poorly paid as they are as compared with successful lawyers or business men. The statistician, in charge of the bureau's fundamental task of collecting educational statistics for the entire nation, receives $1,800. The position of specialist in foreign educational systems, replete with enormous possibilities for leadership in the development of American education and industry on the basis of foreign experience, pays $1,800, the result being that with the passing of the notable educator who had held this post for many years,[1] it is impossible to call to the bureau for this important work any educator who has won recognition in this field. Educators are accustomed to sacrifice, but not to the extent made necessary by the salaries paid in the Bureau of Education.

The situation with regard to salaries paid under lump-sum appropriations is only slightly better. The limit of $3,500 placed upon salaries paid out of these funds means that the bureau can not expect to secure and hold permanently men who have a right to speak with authority in their special fields. Federal specialists in rural education and vocational education for example, should reasonably be expected to receive at least as much as professors of their subjects in State universities or officers of State and county departments of education. The maximum allowed by law for the Bureau of Education is considerably below this figure.

As a result of war conditions the situation with regard to the lower paid clerkships, especially in the statutory positions, has become acute. The bureau can not obtain stenographers at the statutory salaries of $720, $800, and $900. While this condition is partly due to temporary causes, it seems improbable that employment conditions will ever go back to where they were.

[1] Anna Tolman Smith; died August 28, 1917.

STATISTICS.

The fundamental task of the Bureau of Education is to gather statistics of educational institutions throughout the United States. Remote as this activity may seem from the average citizen, without it all the bureau's work would be lacking in the necessary foundation of facts. With exact information as its basis, the bureau is in a position to give comparatively safe counsel. Accurate facts about education in the various States and foreign countries—facts which no other agency, public or private, can possibly have in such completeness—give special reliability to the bureau's educational surveys and similar work. Other nations have envied the United States its central collecting and reporting agency for educational statistics.

During 1916–17 the bureau collected statistics by correspondence from 48 State school systems; 1,241 city school systems; 574 universities and colleges; 530 professional schools; 1,322 training schools for nurses; 278 normal schools; 734 summer schools; 12,003 public high schools; 2,203 private high schools and academies; 912 commercial schools; 397 schools for negroes; 121 State industrial schools and reformatories; 61 institutions for the blind; 159 schools for the deaf; 178 schools for the feeble-minded. The information thus collected is published in the second volume of this report.

The statistics collected show that there were at school during the year 1916 in the United States nearly 24,000,000 boys and girls and young men and women. The enrollment was divided as follows: Elementary schools, 20,560,701; public secondary schools, 1,485,119; private secondary schools, 215,718; colleges and universities, 259,511; professional schools, 69,876; normal schools, 111,672; other institutions, 1,154,293.

The cost of education for 1916, the last year for which figures are available, was $914,804,171, divided as follows: Public elementary schools, $558,391,364; public high schools, $82,325,689; private elementary schools, $53,282,400; universities, colleges, and professional schools, $110,532,396; private secondary schools, $14,598,204; normal schools, $17,682,144; other schools, $77,991,974.

CORRESPONDENCE.

First-class mail matter (letters exclusive of forms) received by the bureau in 1916–17 amounted to 137,805 pieces, as compared with 120,078 pieces in 1916, 86,817 in 1915, and 18,463 in 1910. Forms received totaled 53,925, and library publications 33,674. Documents were distributed to the number of 422,063 and approximately one million multigraphed and mimeographed letters and circulars were mailed.

The heavy increase in incoming mail indicates the growing importance of the Bureau of Education in the minds of the public. The

fact that there has been practically no increase in the facilities for handling the larger business of recent years is accounted for in part by the use of machine mailing lists, and in part by the transfer of document mailing to the superintendent of documents (effective since 1913). The bureau now has addressograph mailing lists covering State, city, and county superintendents of schools; universities and colleges; heads of departments of education in universities and colleges; normal schools, public and private secondary schools; secretaries of city boards of education; elementary schools in cities; educational periodicals, newspapers, besides the names of individual schoolmen who have requested copies of the duplicated material relating to the special fields in which they are interested. Similar lists are maintained by the superintendent of documents, Government Printing Office, for the mailing of education reports, bulletins, and other printed documents, the mailing lists at the bureau being reserved for letters and circulars. Additional machine mailing lists are being compiled covering parent-teacher associations, teachers of home economics in high schools, directors of summer schools, and several other groups.

LIBRARY.

The library of the Bureau of Education is the most extensive library in the United States devoted exclusively to books on education. Carefully built up year after year, it now has approximately 150,000 bound volumes and pamphlets. During the year 1,649 pamphlets were added by gift, exchange, or purchase; 365 were obtained by transfer from the Library of Congress, and 6,200 numbers of serial publications and 7,950 numbers of periodicals were accessioned.

The library serves mainly as a working collection for the bureau's specialists. It is also used by persons outside of the office, however, educators frequently coming from long distances to consult the bureau's reference books. Where possible loans of bureau books are made; these loans amounted to 3,009 in 1916–17. The library's information is made available to the public through two channels—the Record of Current Educational Publications, a monthly guide to books and pamphlets on education wherever published; and special printed, mimeographed, or typewritten bibliographies on special educational topics. During the year 221 of these bibliographies were prepared, bringing the total number of available lists of reference well over 1,000.

During the year the school library exhibit material supplied by the bureau was used in connection with the summer library course at Columbia University, New York; by the library school at Simmons

College, Boston; and at meetings of various associations of teachers and librarians in Vermont, Ohio, Iowa, Kansas, and South Dakota.

The library's collection of lantern slides of high-school libraries was sent to a number of places during the year. The division also attended to the manufacture of a set of 40 slides for use in library campaigns, illustrating the extension work of public libraries, with emphasis on county libraries.

PUBLICATIONS.

The publications of the Bureau of Education for 1916–17 included the annual report of the Commissioner of Education for 1916, 49 issues of the bulletin, and 433 miscellaneous circulars and reprints. The report comprised the usual two volumes, the first containing brief interpretative reviews of current progress in various fields of education throughout the world, the second the latest available statistics on education. The miscellaneous circulars consisted chiefly of brief mimeographed and multigraphed "letters" of the type that have become familiar to school officers in the past five years, including a number dealing specifically with the war.[1] The bulletins issued during the year were as follows:

1916.

2. Agricultural and rural education at the Panama-Pacific International Exposition.
14. State pension systems for public-school teachers.
15. Monthly record of current educational publications—Index, February, 1915–January, 1916.
16. Reorganizing a county system of rural schools.
17. The Wisconsin county training schools for teachers in rural schools.
18. Public facilities for educating the alien.
19. State higher educational institutions of Iowa.
20. Accredited secondary schools in the United States.
21. Vocational secondary education.
22. Monthly record of current educational publications, September, 1916.
24. Monthly record of current educational publications, October, 1916.
25. Commercial education.
26. A survey of the educational institutions of the State of Washington.
27. State higher educational institutions of North Dakota.
28. The social studies in secondary education.
29. Educational survey of Wyoming.
30. University training for public service.
31. Monthly record of current educational publications, November, 1916.
32. Some facts concerning manual arts and home-making subjects in 156 cities.
33. Registration and student records for smaller colleges.
34. Service instruction of American corporations.
35. Adult illiteracy.
36. Monthly record of current educational publications, December, 1916.
37. Cooperative system of education.
38. Negro education, volume 1.

[1] See pp. 4–16.

39. Negro education, volume 2.
40. Gardening in elementary city schools.
41. Agricultural and rural extension schools in Ireland.
42. Minimum school-term regulations.
43. Educational directory, 1916–17.
44. The district agricultural schools of Georgia.
45. Kindergarten legislation.
46. Recent movements in college and university administration.
47. Report of the work of the Bureau of Education for the natives of Alaska.
48. Rural school supervision.
50. Statistics of State universities and State colleges, 1916.

1917.

1. Monthly record of current educational publications, January, 1917.
3. Pine-needle basketry.
4. Secondary agricultural schools in Russia.
5. Report of an inquiry into the administration and support of the Colorado public-school system.
6. Educative and economic possibilities of school-directed home gardening in Richmond, Ind.
7. Monthly record of current educational publications, February, 1917.
12. Monthly record of current educational publications, March, 1917.
13. Monthly record of current educational publications, April, 1917.
14. A graphic survey of book publications, 1890–1916.
20. Work of school children during out-of-school hours.
21. Monthly record of current educational publications, May, 1917.
24. Monthly record of current educational publications—Index, February, 1916–January, 1917.
28. Monthly record of current educational publications, June, 1917.

A considerable amount of special publication work was made necessary by the war. Between April 1 and June 30 some 50 separate publications were issued, ranging from one or two page statements of suggestions to school officials to the commissioner's circular of May 22, of which 35,000 copies were distributed by this office and many additional thousands sold by the Government Printing Office.[1] The bureau's addressograph mailing lists of school officials referred to elsewhere in this report were especially valuable in this work.

HIGHER EDUCATION.

The bureau's contributions to higher education have been mainly in the educational surveys, as described elsewhere in this report.[2]

Projects in this field included a report of recent movements in college and university administration (Bul. 1916, No. 46), in which the survey movement as applied to colleges and universities was described, and recent publications dealing with pensions for college teachers, college entrance requirements, training for public service, and academic freedom were reviewed; a bulletin on accredited secondary schools in the United States, bring up to date the bureau's

[1] For an abridged copy of this statement, see p. 11.

[2] See p. 19.

list of high schools and private academies, which has proved of specific value to every college admission officer; a study of registration and student records in smaller colleges, wherein forms that have been found useful are reproduced for the benefit of all the smaller colleges in the United States; and a study of the 1862 land-grant fund and the colleges established under its provisions. The bureau's annual review of the statistics of State universities and colleges, which has been published in bulletin form since 1908, is used before legislatures as a guide to appropriations. Decisions have been rendered as to the eligibility of 530 universities, colleges, and schools for inclusion in the list of institutions to be accredited by the United States Military Academy. A bulletin on accredited colleges has also been compiled and submitted to the various States for verification.

Several of the recent publications of the bureau deal with important problems in higher education. Besides the bulletin on recent movements in college and university administration mentioned above, the bureau published two comprehensive reports by Dr. George E. MacLean, formerly president of the University of Iowa, on "Higher Education in Great Britain" and "Higher Education in Ireland and Wales." (Bulletins, 1917, No. 15 and No. 16.) In these two significant reports, which are the results of first hand investigations by Dr. MacLean, during a period of three years, not only are the higher educational institutions of the British Isles described sympathetically and in great detail, but the whole subject is treated with special reference to current problems in the universities and colleges in the United States. These studies are typical of the important work the Bureau of Education can do—work that can not be adequately measured at the time it is done, but the influence of which must be in the long run highly valuable for education in the United States. Bulletin, 1917, No. 37, which is a report of the conference on training for foreign service held at Washington, December 31, 1915, also has important implications for higher educational institutions. One entire section of the report is given to university preparation for the consular service.[1] In Bulletin, 1917, No. 34, "Institutions in the United States giving instruction in agriculture," a number of institutions other than the State agricultural and mechanical colleges are listed in which students in agriculture are reported. These include colleges and universities and public and private normal schools. Bulletin, 1917, No. 29, "Practice Teaching for Secondary School Teachers," describes the work done in State universities, non-State universities, and a number of other universities and colleges making special provision for practice teaching for prospective high-school teachers. This bulletin includes the report of the committee on practice teaching of the Society of College Teachers of Education.

[1] Bulletin, 1917, No. 37, pp. 37 to 57.

VOCATIONAL EDUCATION AND HOME ECONOMICS.

Industrial education.—Education for trade and industries has enlisted the interest of a number of Government agencies in recent years, including the Bureau of Education, and since 1912 the bureau has had a special fund, gradually increased, for the investigation and promotion of industrial education. Between 1914 and 1917 the bureau, in cooperation with other agencies, promoted this type of education in a systematic way, and in February, 1917, Congress passed and the President signed the Smith-Hughes Act providing Federal aid to the States for vocational education of secondary grade. The provisions of the act are carried out by a board of seven members, of whom the Commissioner of Education is one.

During the year the Bureau of Education continued its work of aiding States and communities to introduce programs for vocational education, outlining plans for the training of teachers of vocational subjects, holding conferences on the methods and practice of manual training and vocational education, and carrying on educational surveys wherein local industrial conditions are studied as the basis for suitable vocational training. In particular, the surveys of North Dakota, San Francisco, and Elyria, referred to under another heading, have sections dealing with vocational education in the way indicated. The bureau has done its work mainly by conferences and by the distribution of mimeographed circulars dealing with current topics in vocational training. The vocational education letters cover such important topics as "Time allowance for manual arts in public schools," "References to courses of study," "A review of vocational education for 1916," "The American Federation of Labor and vocational education," and "The changing attitude toward manual arts courses." Other circulars issued cover raising the standards of manual arts instruction in the public school, the report of the conference of specialists engaged in the preparation of teachers, held at Peabody College, Nashville, Tenn., December 7 to 9, 1916; and prevocational education in a small city, a report of the conference of superintendents of public schools called by the Commissioner of Education at Kansas City, Mo., February 28, 1917.

A number of the bulletins of the bureau published during the year dealt with the subject of vocational education. Bulletin, 1916, No. 21, "Vocational Secondary Education," constitutes the complete report of the committee on vocational education of the National Education Association, and is serving admirably as a handbook for this important field. Important data concerning manual arts and home economics instruction in 156 typical cities is presented graphically in Bulletin, 1916, No. 32. The Cincinnati experiment in cooperative education, the subject of many articles in magazines, educational journals, and the daily press, was described in Bulletin, 1916, No. 37,

prepared by a member of the University of Cincinnati staff. This bulletin gives an historical account of the engineering work at Cincinnati, accompanied by references to similar work elsewhere. The remarkable work that has recently been done in department store education, especially that carried on by Mrs. Lucinda W. Prince, under the auspices of the Women's Educational and Industrial Union of Boston, is interestingly and succinctly described in Bulletin, 1917, No. 9, the author being Helen R. Norton, assistant director of the school of salesmanship of the Boston organization. Still another field of vocational training is covered in Bulletin, 1916, No. 34, "Service Instruction of American Corporations." Two special bulletins dealing with foreign conditions have been published during the year—the first is a brief statement of the aroused interest in plans for vocational training in the countries now at war; the second, a description by countries of the provision for technical education abroad. This bulletin (1917, No. 12) is of special importance in view of the inauguration of Federal aid for vocational education.

The Federal Board for Vocational Education created by the Smith-Hughes Act of February, 1917, began its organization just at the close of the year. This board, it will be remembered, consists of the Secretary of Labor, the Secretary of Commerce, the Secretary of Agriculture, the Commissioner of Education, and three citizen members representing, respectively, labor, manufacturing, and agriculture. The President appointed as the citizen members, Arthur E. Holder, of Iowa, representing labor (three years); Charles A. Greathouse, of Indiana, representing agriculture (two years); and James P. Munroe, of Massachusetts, representing manufacturing (one year). The board has since appointed a director of vocational education with a number of assistants and specialists.

Home Economics.—Some provision for home economics promotion is contained in the act appropriating Federal aid for vocational education. The Federal fund is very limited, however, and there is much still to be done. As a direct result of Federal aid the demand for information as to methods and courses of study has increased materially. There is special need for more of the kind of work the bureau's two specialists in the field have been doing. Conferences have been held and standards discussed, especially in the training of home economics teachers in colleges and normal schools. During the year the bureau published a bulletin on three short courses in home making for the special use of rural school teachers, besides reaching a large number of home economics teachers and supervisory school officers with mimeographed circulars on home economics.[1] A list of colleges and universities giving home economics instruction was compiled.

[1] For the special war work in this field, see p. 6.

In its series of home economics letters the bureau has done important pioneer work that is abundantly appreciated by leaders in the movement. Through the medium of these brief circulars fundamental problems have been presented and discussed, school and college administrators have had guidance in a subject which has developed so rapidly that literature on methods and courses of study is not otherwise available, and teachers have received the kind of assistance that, according to their own testimony, has equipped them better for their daily work. A list of the letters dealing specifically with the home economics teacher and the war has already been given.[1] Some of the subjects discussed in other of the letters are as follows:

Home economics in the rural schools; Government publications that are of interest and help to the home economics teacher and student; Textbooks and other publications of help to the home economics teacher and student; Opinions on supervision of home economics; Duties and qualifications of a supervisor of home economics; What should an eighth-grade girl know? Conditions governing the introduction of home economics; Value of practice houses; The sewing machine and the commercial pattern; Amount of school time needed for home-economics instruction; Courses in clothing; Ideals of home-economics teaching in smaller high schools; Courses in home economics in smaller high schools; Special features in home-economics teaching in smaller high schools; Meeting the needs of the community through home-economics teaching in smaller high schools; The preparation of the school lunch.

SECONDARY EDUCATION.

The Bureau of Education has no specialist in secondary education. Nevertheless it has done some important work in this field. Mention has already been made of the bureau's bulletin on accredited secondary schools and the bulletin on vocational secondary education. The most important present work of the bureau in secondary education is contained in the bulletins prepared by the National Education Association Commission on the Reorganization of Secondary Education. The bureau published a preliminary report of this commission's work in 1913 (Bul. 1913, No. 41). These reports will cover eventually every high-school subject. So far the reports on two subjects have been submitted and printed by the bureau—social studies and English. The report on social studies (Bul. 1916, No. 28) deals with the teaching of history, economics, and sociology in the upper six years of the public-school system. To a certain extent it supplements two previous bulletins of the bureau (1915, No. 17 and 1915, No. 23). Bulletin 1917, No. 2, contains the report of the same commission on the reorganization of English in secondary schools. This bulletin was compiled by the so-called Joint Committee on English, representing the Commission on the Reorganization of

[1] See p. 6.

Secondary Education of the National Education Association and the National Council of Teachers of English. It signifies, as the preface declares, "a distinct educational movement in which a large group of American educators have gradually come to a clearer consciousness of limitations which they believe must be removed and of new and worthy purposes that they would see realized in the actual work of the schools." It points out that the "crux of the whole difficulty of college entrance in English is the formal examination," but that the hope of improvement lies after all in the schools themselves. The report, it is declared, intends to serve three definite purposes:

(1) To provide school authorities with information useful in arranging courses of study and in providing proper conditions; (2) to assist teachers in choosing the most valuable material and in handling it according to the best methods; and (3) to lay a basis for articulating elementary school and high school and high school and college in such a way as to make possible the best types of work in each.

Significant features of these reports on high-school subjects are that they represent agreement among groups of teachers representing universities and high schools in all parts of the country, that they are very thoroughly prepared and very thoroughly reviewed before being submitted for publication, and that they are forward looking, to the extent that they assume as the future organization of American education the six-and-six plan, with junior and senior high schools.

CITY SCHOOL ADMINISTRATION.

Problems of administration in city schools have received attention in most of the surveys undertaken by the bureau, more especially in the surveys of San Francisco and Elyria. In 1915 the division of school administration prepared a bulletin on school administration in smaller cities. This was followed in the year under review by a similar study of current practice in city school administration with special reference to cities of more than 25,000 population (Bul. 1917, No. 8). This bulletin does not attempt to discuss theories of school administration, since these are easily accessible in numerous textbooks on the subject and in current educational magazines. Its aim is rather to present actual data concerning school-board organization, administration, and supervision in larger cities. Practical questions, such as the number of members on the school board, how these numbers are selected, tenure of office, standing committees, officers of the board, are presented. The relation of the superintendent to the school board and to the entire system is analyzed on the basis of current practice, the statistics being presented by graphs and tables. In describing the superintendent of schools, the bulletin makes the following statements:

A fundamental principle of school administration is that the superintendent of schools should be appointed by the city board of education. If the superintendent is

elected by the people, the office is at once thrown into city politics. This, however, is not the only reason a superintendent should not be elected by popular vote. A city should have the very best superintendent of schools its financial conditions will afford. It should scour the country in search of the best. If the superintendent is elected by popular vote, this can not be done with any degree of success. In brief, it is the universally accepted thought that a school board should have power to choose its own executive officer. In practice school boards in all but a few cities appoint the superintendent of schools.

RURAL EDUCATION.

In rural education three separate investigations have been brought to completion in addition to the surveys mentioned elsewhere. Bulletin 1916, No. 49, is a study of rural school supervision; Bulletin 1917, No. 31, is an investigation of rural teacher preparation through secondary institutions; and Bulletin 1917, No. 34, gives a list of institutions teaching agriculture.

The campaign for the improvement of rural school conditions was continued during the year. Three important rural conferences were held, at Lincoln, Nebr., Philadelphia, Pa., and Rock Hill, S. C., to be followed by similar conferences at St. Paul, Minn., Hot Springs, Ark., Denver, Colo., Butte, Mont., and Chico, Cal. These conferences attempt to present the following aims in rural education:

1. An academic term of not less than 160 days in every rural community.
2. A sufficient number of teachers adequately prepared for their work.
3. Consolidation of rural schools where practicable.
4. Teacher's home and demonstration farm of 5 or more acres as a part of the school property.
5. An all-year school session adapted to local conditions.
6. A county library with branch libraries at the centers of population, the public schools to be used as distributing centers.
7. Community organization with the school as the intellectual, industrial, and social center.
8. A high-school education for all country boys and girls without severing home ties in obtaining that education.
9. Such readjustment and reformation of the course of study in elementary and secondary rural schools as will adapt them to the needs of rural life.

In order to determine what conditions of rural life must be met by the rural schools in at least one section of the country, one of the specialists in rural education devoted several weeks to the study of rural homes in Delaware and New York. In the prosecution of this study numerous farm homes were visited for several days at a time. On the background of this field investigation the elaboration of a

course of study for rural schools in hygiene, health, and sanitation was undertaken.

In his annual statement to the Secretary of the Interior the Commissioner says:

> The improvement of the rural school is admittedly the greatest present educational need. For several years the Commissioner of Education and a considerable proportion of the bureau's force have devoted more energy and attention to propaganda bearing on rural school betterment than to any other single task. In a certain sense the regeneration of the rural school constitutes the major project of the bureau, to which many kinds of operations contribute. Constant publicity, addresses before the people of small country communities, conferences of educators, and other seemingly casual activities all help to create a sentiment in favor of improved conditions. The members of the staff of the division of rural education have devoted much time to work of the sort mentioned.

Other publications of the bureau relating to rural education covered such topics as minimum school term, regulations, training of teachers by the Wisconsin plan of county normal schools, agricultural and rural education exhibits at the Panama-Pacific International Exhibition, survey of a California county system of rural schools, district agricultural schools of Georgia, pine-needle basketry in schools, agricultural and rural extension schools in Ireland, and secondary agricultural schools in Russia.

COMMERCIAL EDUCATION.

Until recently the bureau had no specialist in commercial education. The subject has had attention, however, in the bulletin on "Training for Foreign Service" mentioned above, in another bulletin reporting the work of the commercial education subsection of the Pan American Scientific Congress (Bul. 1916, No. 25), and in a special chapter in the Annual Report of the Commissioner of Education. As a result of the Conference for Foreign Service held in Washington in December, 1915, the Commissioner of Education appointed a committee of fifteen on educational preparation for foreign service, consisting of business men and educators representing various sections of the country, which works in cooperation with the Bureau of Education in investigating and promoting better training for foreign service, both consular and commercial. The 1916 report of the Commissioner, in the special chapter dealing with this subject, pointed out that schools are at present poorly equipped with commercial machinery to meet the demands of modern business training, that the courses of study are ill-adapted to the requirements of present day business, and that commercial education is in serious need of such directive influences as National and State investigations would furnish. It should be noted in this connection that commercial education does not share in the direct benefits of the Federal act for vocational education

KINDERGARTEN EDUCATION.

Through cooperation with two organizations, the National Kindergarten Association and the International Kindergarten Union, the Bureau of Education has been able to maintain for several years past effective work in kindergarten investigation and promotion. During the year two studies have been made by the bureau—one a study on kindergarten legislation, published as a bulletin, and the other a study of the methods of kindergarten supervision. The bulletin on kindergarten legislation (1916, No. 45) describes the California mandatory-on-petition law, whereby the parents or guardians of 25 or more children of kindergarten age, living within a mile of an elementary school, may compel the establishment of a kindergarten by local school boards; analyzes the other types of laws under which kindergartens have been organized in the various States; outlines essential points in the legislative control of the qualifications of kindergartens; makes direct practical suggestions for legislative work in behalf of the kindergarten; and furnishes a complete table of constitutional and statutory provisions for kindergartens in the various States. Other studies now in progress concern out-of-door kindergartens and the relation of kindergartens to community welfare. A special work that promises to be of unique value is the preparation for the press of a series of articles by kindergarten mothers on the training of little children in the home. The series of kindergarten letters was continued during the year and several printed leaflets were issued dealing with such subjects as, "Answers to objections to the kindergarten," and "Organization of kindergartens in cities."

Considerable effort has been put forth in direct action for legislation providing for the extension of kindergartens. Promotion work has been undertaken with women's clubs and legislative committees. Important legislation bearing on kindergartens has been passed in five States, largely in response to the bureau's efforts.

HOME EDUCATION.

Home education is a phase of education that has had the attention of the Bureau of Education more or less intermittently ever since its organization. It was listed by the first Commissioner of Education, Henry Barnard, as one of a number of subjects for investigation, and in recent years has received special attention. The Bureau's work in this field is made possible, as indicated above, by cooperation with the National Congress of Mothers and Parent-Teachers Associations. The work is carried on largely through personal correspondence and through the dissemination of reading courses. The list of reading courses was increased during the year by the addition of a

course in American history. The following is a complete list of the Bureau's reading courses:

1. The world's great literary Bibles.
2. Great literature.
3. Parents' reading course.
4. Miscellaneous course for boys.
5. Miscellaneous course for girls.
6. Thirty books of great fiction.
8. American literature.
10. American history.

Approximately 100,000 copies of these reading courses were distributed during the year. The bureau has been able to secure the cooperation of libraries and library commissions in this work. About 6,000 persons are now enrolled in the National Reading Circle and a beginning has been made in granting certificates to persons completing the courses.

COMMUNITY ORGANIZATION.

Through its recently created division of community organization the bureau is endeavoring to stimulate an interest in civic organization for the adults of the community, with special reference to community use of public schoolhouses. During the year a model bill for community schoolhouse use was prepared and distributed, with an explanatory letter, to governors, State superintendents of public instruction, and legislators in the several States. Special assistance was lent by the bureau, through its specialist in community organization, in the inauguration of this type of work in the District of Columbia. Numerous addresses were made at meetings of citizens and educational organizations throughout the country. Legislation looking toward wider use of public school property was enacted in Iowa, Michigan, Minnesota, New Hampshire, New Mexico, New York, North Carolina, Texas, and Utah.

Prior to the establishment of community organization work within the Bureau, preliminary work had been done through special collaborators, particularly in publications and in the creation of standard forms for reporting school extension activities. Bulletin 1915, No. 13, had treated of schoolhouses as polling places; Bulletin 1915, No. 27, had described the use already made of schoolhouses through the United States as so-called "social centers"; while Bulletin 1915, No. 41 had described a plan by which school extension use could be adequately measured and reported by school administrators. As a direct result of the plan outlined in the third of these bulletins, statistics of wider use of school plant were gathered and prepared for publication as a bulletin of the Bureau, under the title, "School Extension Statistics, 1915–16" (Bul. 1917, No. 30). Though

necessarily incomplete in its information, this bulletin furnishes what may justly be termed the first definite statistical account of school extension activities on a uniform reporting basis.

CIVIC EDUCATION.

The subject of civic education has already been mentioned in connection with the reports of the Commission on the Reorganization of Secondary Education that are being issued by the bureau. Contributions to the discussion of civics have also been made by the Bureau in two of the city school surveys, those of Elyria, Ohio, and San Francisco, both of which contain detailed reports on this aspect of public education.

The influence of the bureau's bulletins on civics, "The Teaching of Community Civics," "Civic Education in Elementary Schools, as illustrated in Indianapolis, Ind.," and "Social Studies in Secondary Education" (Buls. 1915, No. 23, 1915, No. 17, 1916, No. 28) is already evident in many new courses of study, both printed and in manuscript form, that have come to this office during the year from all over the country. Massachusetts, Connecticut, Pennsylvania, and New Jersey are States that have taken significant steps forward. Massachusetts has planned a campaign to get the fullest possible benefit from a recently enacted law requiring citizenship training in all the schools, and arrangements have been made to detail the bureau's special agent in civics to the State to help in the organization of the work.

In response to suggestions coming from various sources, the bureau has recently issued a preliminary announcement of a plan to organize courses of civic instruction for young men and women between the ages of 16 and 21, whether in school or not. The plan involves the cooperation of school authorities and extra-school agencies, and includes a "citizenship ceremony," to be held probably on July 4, to give formal recognition to the entrance into the obligations of political citizenship of all who have attained voting age during the year, with especial attention to those who have completed the course of preparation provided. The ceremony is designed "to impress both the new citizen and the community of which he is a member with the obligation assumed by him upon reaching voting age or upon naturalization, and especially with the importance of preparation for its efficient performance," and "to stimulate every community to make adequate provision for the civic preparation of its young citizens."

AMERICANIZATION.

The division of immigrant education of the bureau has made decided progress (1) toward making itself a national clearing house of information; (2) toward establishing standards and methods in the

education of immigrants; and (3) toward welding into one united force all agencies dealing educationally with Americanization.

In accomplishing the first purpose, 96,958 circulars, news letters, schedules of standards, and syllabi were disseminated; 29,400 news releases; 57,000 enrollment blanks; 9,265 "America First" posters; 5,719 pamphlets and bulletins, and a quantity of other material.

The bureau's Americanization exhibit was shown at 10 State and National conferences, including the annual meetings of the Chamber of Commerce and the National Education Association.

Several of the leading State and city boards of education adopted the "Schedule of Standards and Methods in the Education of Immigrants," made public by the bureau in February. By agreement the New York State Department of Education appointed a supervisor to work these standards out in every city possible, including New York City. Several hundred superintendents, principals, and teachers have been acquainted with these standards and methods at conferences and institutes and are now gradually establishing them in their respective communities. The bureau's specialists have, upon the request of superintendents, instructed large numbers of teachers in the most approved methods of teaching immigrants.

To gain greater cooperation, officials attended and addressed 33 conferences and visited over 50 cities. A national committee of 100 was appointed to act as an advisory council to the bureau, to assist in conducting the "America First" campaign, and to represent and mobilize all forces interested in Americanization. On February 3, the national committee held an "America First" conference composed of prominent industrial leaders and officials. The executive committee opened headquarters in Washington to enable it to promote the bureau's progress more effectively. The committee has already marshaled several national organizations located in Washington and a number of Federal departments back of the bureau's undertaking, thus eliminating duplication of effort, and effecting concerted action. Through representation on the committee all the leading National, State, and local forces are now working with the bureau.

Other phases of activity have included the preparation of a war Americanization plan; the organization of an educational section in the National Safety Council with the chief of the division as chairman; cooperation with several chambers of commerce in holding "America First" dinners; the arrangement of programs for various organizations; the making of two surveys into the condition of immigrant education, one in Elyria, Ohio, and one extending over a month in San Francisco; and the development of a national policy of Americanization.

Bulletins published during the year included one on "Public Facilities for Educating the Alien" (1916, No. 18), in which the prob-

lem of illiterate immigration is outlined, and statistics are presented to show what provision has so far been made, through evening schools or otherwise, in the chief cities of the United States; and "Adult Illiteracy" (Bul. 1916, No. 35), in which the extent of illiteracy is revealed, immigrant illiteracy figures are analyzed, and the "workers' class" described as a method of handling the illiterate worker in industry.

HOME AND SCHOOL GARDENING.

Mention has already been made of the increased importance of the possibilities of home and school gardening as a result of the war.[1] An important project of the bureau during the year was the intensive supervision of gardening in eight cities in Virginia, North Carolina, and Tennessee by one of the specialists in school and home gardening. Thirty-nine teachers have been working under the direction of this specialist. By October 15, 1917, more than $50,000 worth of vegetables had been harvested. While it was yet too early at the time this report closed to give anything like a complete report for the cities of the country, it is worth noting that 34 cities report 67,388 children engaged in home garden work.

One of the specialists in school and home gardening was detailed for some weeks to Atlanta, Ga., where he successfully inaugurated home gardening under school supervision. After the work was started, school authorities employed a person to supervise the work of the garden teachers. Classes for the training of garden teachers were given by specialists of the bureau at the summer schools of Cornell University, George Peabody College for Teachers, and Teachers' College of Columbia University. Approximately 100 cities have adopted the bureau's plan of school-directed home gardening.

Special publications during the year in the garden field included "Gardening in Elementary City Schools" (Bulletin, 1916, No. 40); a report of the garden survey of Richmond, Ind. (Bulletin, 1917, No. 6), carried out as part of the Indiana State vocational survey; large editions of the bureau's leaflets on school and home gardening, prepared for the special use of garden supervisors and teachers; and several miscellaneous circulars urging the importance of gardening in war times. In Bulletin, 1917, No. 20, the out-of-school activities of school children in a number of States are analyzed and the possibilities of home gardening are presented as of special significance. A report on home gardening directed by the school under the bureau's plan in a typical suburban town, that of Englewood, N. J., is now in press.

Bulletin, 1916, No. 40, on "Gardening in Elementary City Schools" was prepared for the use of school officials contemplating the introduction of gardening. It answers these questions: (1) Why gardening should be introduced into the schools; (2) how gardening may be

[1] See p. 3.

introduced into the schools; (3) how gardening may be promoted in the schools. Beginning with a plea for adjustment in education to the demands of modern industrial life, the bulletin points out the close relation of gardening to democracy in education and vocational guidance, its importance in the development of thrift and industry, and its effectiveness as a solution of the child-labor problem. Methods of introducing gardening, kinds of school gardens, the question of instruction and supervision, financing, procuring land for the garden, selection of crops, planning the garden, the seed supply, disposing of the crop, and necessary records—these are all discussed in a direct, practical way for school superintendents who desire to introduce home gardening into their schools.

NEGRO EDUCATION.

The most important work of the bureau in Negro education during the year was the completion of the report on colored schools, already mentioned elsewhere. With the publication of this epoch-making report (Bulletins, 1916, Nos. 38 and 39), the bureau brought to a close the first step in a project of increasing national importance—adequate education of the colored people of the United States. This report was the result of a three years' first-hand study of existing Negro schools in the Southern States undertaken by the bureau in cooperation with the Phelps-Stokes Fund, a foundation established by the late Caroline Phelps-Stokes for the improvement of the condition of Negroes and other racial groups. The bureau's report on colored schools may be said to have transferred the problem of Negro education from the field of guesswork to that of science. It is not only the most important study of Negro education ever made; it is in many ways one of the most important, most comprehensive studies of educational conditions made of any group. Taking as its motive force the needs of the 10,000,000 black people in the United States, it promises to be a valuable guide to the educational advance of the whole Nation, just as the work of certain Negro schools in the South has proved so admirable that it has formed an example for many educational institutions elsewhere.

The report on Negro education is in two large volumes, illustrated with pictures of school activities, school plans, etc. The first volume contains general discussions of the various phases of Negro education. The economic, industrial, and social conditions of the Negro are presented and discussed as a measure of the educational needs and the extent to which they have been met. The work of the denominations, boards, and foundations and other agencies interested in the welfare of the Negro is described appreciatively but discriminatingly. Complete lists of the 747 schools visited are given, with necessary data as to teachers, attendance, and financial support.

The second volume contains individual sketches of all the private and higher schools visited. They are grouped geographically with the appropriate State and county setting, so that, in every instance, the schools may be judged in direct relation to the task imposed upon them by community demands. For each State, definite recommendations are made and a program of work on behalf of colored schools outlined. Similarly, for each school the individual school sketch, ranging in length from a few lines to several pages, according to the size or importance of the school, is regularly accompanied by a statement of recommendations for the improvement of the conditions as recorded.

The report points out the special need for agricultural and industrial training for the Negro, but it also makes clear that the Negro needs, as perhaps no other element in the population needs quite so much, the wise leadership that college and professional training give. The report urges, on the one hand, that gardening be introduced into all schools, and that trade and industrial training, especially in agriculture and the trades depending upon it, be provided in ever increasing measure, but insists, on the other hand, that professional training of the highest type should also be provided, so that the colored race may have "medical schools that will prepare health leaders for the race; law schools that will train men whose ideals for their race are above those now engaged in the practice of law; theological institutions that will supply wise and well-trained leaders for a race whose emotional nature demands the highest type of spiritual guidance." Above all the report finds there is need for more and better education in the fundamentals; better trained teachers; longer school terms; more adequate schoolhouses and grounds; and in general, financial provision for colored public schools that is more nearly in accord with the importance of the Negro to the welfare of the State and of the Nation. In a summary the report says:

> Democracy's plan for the solution of the race problem in the Southland is not primarily in the philanthropies and wisdom of northern people; nor is it in the desires and struggles of the colored people; nor yet in the first-hand knowledge and daily contacts of the southern white people. Democracy's plan is in the combination of the best thought and the deepest sympathy and the most abiding faith of these three groups working with mutual faith in one another.

SCHOOL HYGIENE.

For several years past the bureau has had only part time service in the field of school hygiene. It has been possible, however, for one of the two special agents engaged in this work to examine and criticize plans of school houses and for the other to prepare a review of progress in educational hygiene for the annual report of the Commissioner of Education and to answer in part at least the numerous inquiries that

come to the bureau on this subject. The bureau published during the year a bulletin on medical inspection in Great Britain, the result of a study made just before the outbreak of the war. The English work in this field has been carefully planned and systematically worked out, and an account of it should prove of direct benefit to American schools. An attempt was made to list chief school medical officers in the educational directory for 1915–16 and 1916–17, and a similar attempt will be made for the 1917–18 directory.

EDUCATION IN FOREIGN COUNTRIES.

One of the types of work for which the bureau has been best known in past years is the collection and dissemination of information regarding foreign educational systems. A number of chapters in the Annual Report of the Commissioner of Education for 1916 dealt with educational movements in foreign countries. During the year under review the division of foreign educational systems made several other studies, including one of secondary agricultural schools in Russia and one describing higher technical institutions in foreign countries, both already referred to in another connection. A report was prepared on the military training of youth of school age in foreign countries.

The bulletin dealing with higher technical education in foreign countries (1917, No. 11) describes the systems in vogue in Germany, France, Great Britain, Ireland, Switzerland, Italy, Austria, Russia, Japan, Canada, and South America. The point is made that "interest in technical education of the higher order has been greatly increased by the European war and, as a consequence, numerous inquiries have been recently received at the Bureau of Education with regard to the higher technical schools in foreign countries." The bulletin endeavors to answer such inquiries, particularly as relate to the organization and conduct of foreign schools, their courses of instruction, and the relative value of their diplomas. Practically all countries are represented in the report. The bulletin gives a survey of the studies preliminary to higher technical education, accounts of typical schools, and statistical summaries of additional institutions. The scope of the bulletin is indicated in the following summary paragraphs from the introduction:

> In a completely organized system of technical education the line of relation between the lower grades and the highest starts with the modeling and weaving exercises of the kindergarten, and is continued by manual training and science studies in elementary and secondary schools. The various orders of technical schools diverge from the main course of general education at successive stages: Continuation schools with a vocational bias follow the elementary grades; schools of arts and trades follow the intermediate or higher grade elementary schools, while technical schools of the secondary order require for admission two or three years of a secondary school course; the higher technical schools are distinguished from the latter by a standard of admis-

sion equivalent to the bachelor's degree or the university matriculation examination. In all European countries large provision has been made for the lower orders of technical training, and in particular provision for trade and engineering schools intended to provide directors and foremen of large industrial works. As a rule, both in Great Britain and in Germany the highest technical schools have developed from schools of the secondary order, although the latter are not regarded as preparatory to the former. Even in Italy, where the two orders of technical education are closely correlated, a student from the secondary technical institutions must pass a year either in a preparatory section of the higher technical schools, or in a university faculty of sciences before he can be registered in the advanced technical courses.

The close relation between the progress of industry and that of technical education is emphasized anew in every survey of this subject. Schools of military and naval engineering pertain directly to State service, but a much higher conception of technical education led to the establishment of the technical schools that now dispute with the universities supremacy in the field of higher education.

EDUCATION FOR NATIVES IN ALASKA.

The Bureau of Education is charged with the administration of schools for natives of Alaska, as indicated above.[1] During the year 68 schools were maintained, with an enrollment of approximately 3,600 pupils. Four superintendents, 1 acting superintendent, and 111 teachers were employed. Throughout the school work emphasis has been placed upon instruction in health, industrial training, gardening, and commercial education. Efforts have been made to improve living conditions in the villages, to lessen the death rate, and to render the natives better able to cope with the conditions which confront them.

The school buildings at Noorvik, Shaktoolik, and Port Moller were completed during the year. Teachers' residences were erected at Hydaburg and Klawock. The erosion of the bank of the Yukon River made necessary the taking down of the Fort Yukon school building, which will be rebuilt at a greater distance from the river. The region surrounding the village on Golovin Bay, in northwestern Alaska, is barren, and it was with difficulty that the Eskimos could support themselves in that location; they therefore migrated across the peninsula to a tract on the northern shore of Norton Bay, where they have an abundant supply of fish, game, timber, and reindeer moss for their herds. The school was reestablished within this tract, which was reserved for the natives by Executive order. A wireless telegraph station was established at Noorvik.

Action was again taken to put in operation the industries in Metlakatla, on Annette Island. A lease was entered into with cannery operators of Seattle, Wash., of a site for a salmon cannery and of fish-trap rights within Annette Island Reserve. The lessees pay 1 cent per salmon for all salmon caught in traps and an annual permit fee of $100 for each fish trap erected on the reserve. They guar-

[1] See p. 45.

antee the payment during the season of 1917 of not less than $4,000 for fish-trap privileges. The cannery is to be operated for five seasons beginning with 1918. For the cannery and fish-trap privileges during these five years the lessees guarantee the payment of not less than $6,000 per annum. Except in a few instances where skilled labor is required, only native inhabitants of Annette Island are to be employed. It is hoped that the annual income of the Metlakatlans from this lease will enable them at the end of the period of the lease to purchase all of the lessees' interests and operate the cannery themselves, under the supervision of the Federal Government. A local cooperative company has rehabilitated the sawmill which is now furnishing lumber for the cannery building as well as for other buildings in the village. Six thousand dollars of the bureau's funds were expended in installing a water system to furnish drinking water for the village and water power for the cannery and sawmill.

For the fiscal year 1915–16, Congress appropriated $25,000 to provide for the medical relief of the natives of Alaska; in addition, $19,000 of the appropriation for the education of natives of Alaska was used for that purpose, making a total of $44,000 for medical relief during the year. The appropriation for medical relief was increased from $25,000 to $50,000 for 1916–17, but as none of the education appropriation was used for medical relief the total expended for that purpose during 1916–17 was only about $6,000 more than during the previous year. A well-equipped hospital was maintained at Juneau with a physician in charge and three nurses in attendance; the small improvised hospitals at Nulato and Kanakanak were continued; the hospital at Kotzebue was not in operation during the year, owing to the fact that the physician formerly in charge left Kotzebue too late in the season to permit of a successor being secured for that remote station before the close of navigation.

In all 5 physicians and 10 nurses were employed; in several of the Alaskan towns payments were made for the treatment of natives in hospitals and by physicians upon the request of superintendents or teachers; teachers at stations remote from a hospital, physicians, or nurse, were furnished with medical supplies for use in relieving minor ailments.

Plans were made for the establishment of a small hospital at Akiak, on the Kuskokwim River, and material for the erection of a hospital building at that place was purchased in Seattle. Great difficulty was experienced, however, in securing transportation for the building material and hospital supplies to this isolated place, The only vessel which it was possible to secure proved unseaworthy, was unable to reach her destination, and had to return to Seattle with her cargo undelivered and part of it in a damaged condition. It was then too late to secure another boat to make the voyage during

the short season of open navigation remaining. Consequently it was necessary to postpone the erection of the hospital at Akiak until the fiscal year 1918.

The appropriation of $5,000 for the distribution of reindeer among the natives and the training of the natives in the care and management of reindeer was used to establish new herds and to support native apprentices being trained in the industry. The increased cost of food and clothing has made it impossible for the Government to train as many apprentices with the same appropriation as formerly.

The latest available statistics regarding the reindeer are those for the fiscal year ended June 30, 1916, which show that during that year the number of reindeer increased from 70,243 to 82,151, and the number of herds from 76 to 85. Of the 82,151 reindeer, 56,045, or 68 per cent, were owned by 1,293 natives; 3,390, or 4 per cent, were owned by the United States; 5,186, or 6 per cent, were owned by missions; and 17,530, or 22 per cent were owned by Lapps and other whites. The total income of the natives from the reindeer industry during the fiscal year, exclusive of the meat and hide used by the natives themselves, was $91,430. The total number of reindeer, 82,151, is a net increase of 17 per cent during the year, notwithstanding the fact that about 13,200 reindeer were killed for meat and skins.

There is still need for the extension of the industry on the Aleutian Islands, and especially in the delta country between the Yukon and Kuskokwim Rivers, where hundreds of natives are living in abject poverty, unreached by civilizing influences.

IV.

EDUCATIONAL CONDITIONS IN THE OTHER WARRING COUNTRIES.[1]

It is not yet possible fully to estimate the profound and far-reaching effects of the war upon education. A prolongation of hostilities may not only aggravate evils hitherto successfully combated, but develop situations altogether unprecedented. Certain facts, however, already appear with sufficient clearness to indicate, in general lines, the tendencies of the present upheaval. These facts crop out, with striking similarity, in all the countries now at war—in each of the central powers as well as of the allied nations—and this universality gives them an added significance.

It is obvious, for example, that the damage to the educational systems of the warring countries has been merely material and quantitative. School buildings have been destroyed or commandeered; teachers have been drafted; universities and higher schools have lost in some instances as much as 75 per cent of their regular enrollment; war industries have claimed thousands of older boys whose education has thus been disturbed or postponed, if not prematurely ended. But interest in public education has nowhere been weakened, nor have the standards of instruction been lowered. On the contrary, Europe has never been so alive to the supreme social importance of education as in this time when all established social institutions are being tested as by fire. The idea expressed in 1828 by the English educator, Brougham, that he "trusted more to the schoolmaster armed with his primer than he did to the soldier in full military array for upholding and extending the liberties of his country," seems to find a new significance throughout Europe to-day.

It is felt that a nation can not attain that efficient unifying of all its powers that is necessary for victory in war, as for success in peace, unless every citizen in that nation is a practically adjusted member of the national organization. In this connection vocational education and character training are often emphasized as all important. But this is a partial view. A world-wide movement to perfect the whole scheme of public education is resulting from the war. The fact that this movement is being carried forward even while the nations are engaged in the exhausting conflict shows the changed conception of the social worth of education. The time is past when

[1] Prepared by W. S. Jesien, of the division of foreign education.

education could be considered a national luxury; it is now regarded as a primary necessity of national life, and the most striking illustrations of this new conception are offered by the events that have taken place during the present war.

France and England are engaged in a simultaneous reorganization of their respective systems of public education, and the continuation school projects now pending in the parliaments at Paris and London are essentially identical. They both introduce universal compulsory continuation schooling of general and vocational character. The English bill provides, in addition, for an extension and perfection of elementary school compulsion. In Germany the "Einheitschule" movement, aiming at a democratization of the school system of that country, has made most important progress during the war. In Russia new schools are being organized everywhere. In Italy the elementary system is undergoing extension, and provision has been made for instruction of illiterate adults.

Of special interest in this connection are the events that have taken place in Poland since its evacuation by the old Russian bureaucratic machine. The first use the Poles made of their temporary freedom was to introduce compulsory elementary school attendance, nonexistent under the old régime. New schools were established with such zeal that in one year (1915–16) the number of schools increased by 47 per cent. In Warsaw alone 400 new elementary schools and 47 industrial continuation schools were established in that year.

In addition to the present activities, extensive plans for educational reconstruction and reforms after the war are under consideration in all the warring countries. In these plans several features appear with striking similarity in the different countries. It is, for example, the consensus of educational opinion that improvement must be sought in technical and vocational education, in modern languages and commercial subjects, in physical and character training.

New educational interests have also been aroused by the war alliance between certain groups of nations, as between Russia on the one hand and Great Britain and France on the other. This is resulting in a study of the Russian language, and of things Russian, in universities and colleges of France and England, and in a greater interest on the part of Russia in French and English social, political, and cultural institutions. The same causes have brought about an intellectual estrangement between Germany and the allied nations. It must be acknowledged, however, that the efforts of certain groups on both sides to eliminate the enemy languages from school instruction have received a prompt check from more mature and sober educational opinion.

The following statement from the Mannheim Gazette may be regarded as representative of the German attitude in this matter:

> The modern languages occupy a prominent position in our real schools and higher real schools (Oberrealschulen). No narrow minds will demand their curtailment because of our unpleasant experience with the French and the English. On the contrary, the knowledge of these languages is absolutely necessary to us, especially that of English. Ignorance of a foreign language or of a foreign nation is not an element of strength, but of weakness. Besides, Germany has no intention of isolating herself from the rest of the world when the war is over. She does not want to wage war after the war. She strives more than ever to penetrate into the world. * * * The modern languages ought to be given more, not less, time than heretofore.

Educational opinion in Great Britain is no less resolutely opposed to any hasty action in respect to the German language. A memorandum adopted recently by the general committee of the Modern Language Association says:

> It is not possible to give any exact forecast of the commercial relations of England and Germany after the war, but whatever form they may assume there is no doubt that a knowledge of German and German conditions will be required for commercial purposes. In the future it will be even more necessary than in the past that there shall be in responsible quarters people possessing an adequate knowledge of German and all that the study of German in the widest sense should imply. * * * The study of German has inevitably suffered during the war, but we are of opinion that to allow any further diminution to take place, or even to accept the present reduced scale as permanent, would be to the national disadvantage.

On the whole it may be said that the movements directed against the study of foreign languages have nowhere attained appreciable success. The more practical standpoint which defends the study of foreign languages and foreign conditions on the ground of their importance in international trade competition finds readier recognition than that based on sentimental motives. Thus far the shrinkage suffered by some foreign languages because of the war has been by far outweighed by the extension accorded to other languages.

The study of Russian has made the greatest progress in England, where, according to a recent investigation,[1] over 55 per cent of all universities and colleges have established courses in Russian. Among the remaining institutions many have already made arrangements for the establishment of such courses or have the matter under consideration. In Scotland 4 higher institutions and 18 continuation centers have courses in Russian attended by a total of 566 students.

In France the revival of interest in things Russian has recently resulted in the establishment of a Russian course at the University of Clermont. The desirability of giving the Russian studies a wider spread in France has been urged by the educational press, and it may be expected that other universities will follow the example of the University of Clermont.

[1] In November and December, 1916, as reported in Modern Language Teaching, June, 1917.

The Italian universities are likewise displaying a keen interest in Russian studies.

In Russia the war has aroused an increased interest in the languages and civilizations of the other allied nations, especially England and the United States. This has already resulted in a considerable extension of the study of English in Russian secondary schools.

The detrimental effects of the war, such as the dearth of teachers, the reduction in school attendance, the commandeering of school buildings, etc., have assumed serious proportions only in the countries or districts lying directly in the path of military operations or serving as centers for the mobilization of troops. A vigorous effort to amend these conditions, wherever possible, and to reestablish the normal course of school life is in evidence in every country. These various conditions resulting from the war and the expedients adopted by educational authorities in the different countries in order to counteract them are treated under the respective countries. It must be noted that, in spite of the great difficulties resulting from the draft of teachers for military service, no belligerent nation has yet found it possible wholly to exempt teachers from the operation of the draft laws. In Russia the Kerensky régime is reported to have attempted to release from military service all teachers not at the front. In other countries, however, there are no indications of such measures being contemplated; in England even the exemptions previously allowed have recently been canceled.

The information presented in this section is naturally very incomplete. Some nations are actually cut off from all communication with the United States. Others have been unable to gather accurate data on education owing to disturbed conditions. Very little is known of educational conditions in the central powers, but occasional news dispatches bring stories of disorganization of school instruction and suffering of school children.

A recent dispatch from Rome states that in Austria, owing to serious shortage of food, school children are suffering from malnutrition to such an extent that it is practically useless for them to continue their studies. This statement may be exaggerated, but the probability of serious effects of the famine on school children in all of the central powers can hardly be questioned. In Germany the gravity of the situation is indicated by the practice recently adopted of sending children from overcrowded towns to country places where food can be provided for them more easily.

Education in the belligerent nations taking less active part in the military operations has been very slightly affected. This is also true of colonies of the belligerent powers.

GREAT BRITAIN.

ENGLAND AND WALES.

General outlook.—In spite of the material difficulties created by the war, the results of the educational developments in England for the last three years are rather encouraging. It is one of the surprising paradoxes of this war that the cause of public education in England has been distinctly benefited by the violent disturbance of ideas and institutions coincident with the preparation for the most efficient prosecution of the war. It is certain that no other event would be potent enough to rouse the nation to a reformistic activity of such magnitude as that now going forward. The report of the board of education for 1915–16 registers these hopeful symptoms as a compensation for the difficulties of the present moment. The auspicious effects of the war are outlined by the report as follows:

> The war is giving new impetus and vigor to many movements for national reform and is enabling them to gain an amount of support which under normal conditions could only have been won after many years of slow progress; and one of the most significant manifestations of its influence is the great development of public interest in education. The merits and defects of our educational system are being canvassed in many quarters and from many points of view; and we have been impressed by the general consensus of opinion that after the war it will not suffice merely to repair the losses which education has suffered, but that improvements and developments of our existing system are essential to the national welfare. We appreciate the weight attaching to this widespread demand for a comprehensive scheme of development; and we are alive to the necessity of taking all possible steps to prepare for any opportunity which may arise of giving practical effect to it by suitable legislation or administrative action.

Since the publication of the above report the Committee on Juvenile Education in Relation to Employment after the War,[1] appointed early in 1916, made public its monumental final report, which served as a basis for the 1917 education bill now pending in the House of Commons. The effect of this bill, which is discussed at length under separate heading, will be to give England, if it is adopted in extenso, a complete provision for compulsory continuation education.

Even more important than the actual progress made is the sentiment which has prompted the reforms so far accomplished and which stands ready to support further measures for democratization and improvement of public education in England.

Effects of the war on the schools.—The outline of the effects of the war on the school work given in the Report of the Commissioner, 1916, Vol. I, remains true for the period of the present report, except for the quantitive changes due to the growing difficulties.

The military occupation of school buildings, especially in the eastern and northeastern districts of England, has made further progress. The total number of public elementary schools in England

[1] Popularly known as the Lewis Committee.

and Wales wholly or partly occupied for military purposes was 169 on August 31, 1915; 219 on January 31, 1916, and 170 on July 31, 1916. The number of children displaced as a result of these arrangements increased from 109,335, on August 31, 1915, to 123,455, on July 31, 1916.

In order to curtail the expenditure and release teaching forces employed in some small schools, many such schools were closed and the children transferred to neighboring schools. Since the beginning of the war 68 elementary schools were closed in this manner in England and Wales. The experiment was not found satisfactory in all cases.

The dearth of teachers has caused some emergency arrangements designed to provide additional teaching force and to utilize the services of the remaining teachers in the most economical way. It was found possible in many instances to redistribute the staffs so as to relieve the schools most seriously affected.

In engaging additional teaching forces care is exercised to prevent, as far as possible, the lowering of professional efficiency of the staff.

Vacancies in the post of head teacher have generally been filled by the appointment of duly qualified teachers; exceptions are practically confined to small and remote schools where the employment of an uncertified assistant has been accepted for the period of the war. Before the war the larger schools were frequently staffed with an assistant teacher for each class, independently of the head teacher; the head teacher now is, as a rule, in charge of a class in addition to performing his ordinary duties of supervision. The assistant teachers who have withdrawn have been replaced to a large extent by other qualified teachers (mainly married women or superannuated teachers) who had retired from service, though in some areas it has been found necessary to supplement these by the temporary employment of unqualified assistants.

The employment of women as teachers of younger boys has become universal; it has, however, been found possible in most schools to arrange for boys over 12 years of age to continue in charge of men teachers. As a rule the size of classes, especially in urban schools, has been somewhat increased; but there are comparatively few classes in which the limit of 60 children on the books laid down by article 14 of the code has had to be exceeded for any considerable period of time.

No recent statistics of elementary-school teachers are available, as the board of education was compelled by the war to suspend the collection of statistics. It is certain, however, that the staffing of the great majority of the schools is still above the minimum standard prescribed by the law.

The draft on teachers for military services was reduced, in a measure, by arrangements between the board of education and the army council. These arrangements, concluded in June, 1916, provided for exemption, under certain reservations, of teachers, educational officials, and full-time students of public teaching institutions, who were found unfit for "general service." In addition, the board of education had power to recommend for exemption individual teachers and officials whose retention in the service was of great importance, as well as students of exceptional promise, even though they were found fit for general service. These arrangements were modified in February, 1917, the practical result being to reduce exemption rights of teachers to those ordinarily accorded all citizens through the operation of local tribunals. As a result of the new rules, a considerable number of men heretofore temporarily released were drafted into service with the understanding, however, that the army council would release from the army, wherever practicable, teachers of certain categories.

Employment of school children.—The number of school children under 19 years of age excused from attendance at public elementary schools for purposes of agricultural employment was 14,915 on October 16, 1916. This number shows considerable reduction, compared with previous reports, and is a result of special steps taken by the board of education to limit the unnecessary release of school children observed in many areas. A far greater number of children have been released entirely on the basis of examinations for labor certificates. In the year ending July 31, 1916, the number of children examined was 51,422; the number of those who passed was 25,521. The total extent of employment of school children is not known, as irregularities were allowed by local authorities in many sections of the country.

Evening play centers.—The board of education has recently given important encouragement to the establishment of evening play centers for children in public elementary schools by offering grants for the maintenance of such centers. This movement is intended to provide shelter, entertainment, and good moral influence for children hitherto left to the influences of the street while their parents were unable to care for them. Formal regulations were issued in January, 1917, stating conditions on which grants would be made. Both local education authorities and private agencies will be recognized in this connection. The grants will in no case exceed half the expenditure for the center. Centers are open for not less than one and a half hours on every night except the ordinary school holidays. They are conducted by trained superintendents and assistants, selected from the staffs of elementary schools. It is recommended

that children be given real rest and recreation, and that the atmosphere of class work be especially avoided. The children are divided into groups according to the occupations they prefer. Among the occupations mentioned as suitable for evening play centers are the following: Physical exercises and games, music, dancing and singing, toy making, needlework and knitting, drawing and painting and clay modeling. Manual training may be given to older boys.

War savings movement in public elementary schools.—On May 5, 1916, the board of education, at the request of the National War Savings Committee, issued a circular asking for the assistance of local education authorities in making known through the public elementary schools the facilities for saving afforded by the issue of war savings certificates. With the cooperation of the authorities and teachers, special lessons were given on the subject and copies of a leaflet explaining the purpose of the war savings associations were widely distributed to parents through the children. The board has also placed at the disposal of the committee some of its inspecting staff for organizing and secretarial work in connection with the local war savings committees which have been formed. Notable assistance has already been given to the movement in various areas by the schools. A large number of war savings associations have been formed in direct connection with the schools. Members and officials of local education authorities, teachers, and scholars have thrown themselves into the campaign with enthusiasm. Many teachers are acting as secretaries and organizers to the associations; the scholars have distributed pamphlets and notices of meetings and collected the savings of distant members.

THE EDUCATION BILL.

On August 10, 1917, Mr. Herbert Fisher, president of the board of education, introduced in the House of Commons a comprehensive educational bill, whose most important provisions are the strengthening of the existing laws of compulsory elementary school attendance and the creation of a system of universal compulsory continued education from the date of completion of the elementary school course to the age of 18.

The latter provision alone is of sufficient importance to give the bill the character of a momentous event, since very few nations have up to the present time extended school compulsion beyond the public elementary school.

In the domain of elementary education, the bill abolishes all exemptions from school attendance between the ages of 5 and 14 years. Children under 5 are to receive nursery-school education, which is, however, optional and dependent on the efforts of local education authorities in providing such schools. The primary instruction proper commences at the age of 5 or 6 and lasts until the child completes

the school year in which he or she is 14 years old. No child under 12 can be employed in shops and no child can be employed during the school hours or after 8 p. m. or on nonschool days between 6 a. m. and 8 p. m. All fees in elementary schools are abolished. The leaving age of the elementary period may be raised from 14 to 15 by by-laws, and in that case the entrance age may be raised to 6.

The period of compulsory continuation education commences with the time of leaving the elementary school and extends to the age of 18. The minimum requirement is 320 hours in a year, or 8 hours per week, with the provision that this may be increased by the board of education after five years of the operation of the system, subject to the approval of the Parliament. The instruction in continuation schools must be given in daytime, not after 7 p. m. or before 8 a. m., and the persons attending such schools who are employed must have the necessary time taken out from the hours of their employment. The continuation schools will not be in session on Sunday or on any recognized holiday. The compulsion does not apply to young persons who have received satisfactory full-time education up to the age of 16 or who have passed a university matriculation examination. Instruction is to be physical, vocational, and general.

The administrative reforms provided by the bill affect chiefly the competence of local education authorities. The various elementary school grants are to be consolidated into one system. The bill also contains provisions for the development of physical training and for an extension and improvement of medical inspection of schools.

In respect to the adoption of the bill, the expectation of the Government is that it will be passed before Christmas. In the meantime it is subjected to comments and criticisms by the press. The main objections raised may be summarized in the statement that the bill does not go far enough. It permits the employment of children after school hours and on nonschool days. The minimum of eight hours a week of continuation instruction is also considered inadequate. But the spirit of the proposed legislation is earnestly supported by all the organs of public opinion.

The School of Oriental Studies.—In February, 1917, the School of Oriental Studies, which received a charter in June, 1916, was formally opened in London. The scheme of organization of the school was worked out by the committee under the chairmanship of the Earl of Cromer, appointed in 1910. The buildings, library, and equipment have been provided by the Government, with the assistance of the old London institution. The Government has made a maintenance grant of £4,000 a year, to which the Indian Government has added £1,250 and the London County Council has promised an annual grant of £1,333 under certain conditions. As these funds are insufficient to conduct the school on the intended plan, further extensions must wait until the close of the war.

STATISTICAL SUMMARIES.

Attendance at public elementary schools.—The following table gives the statistics of elementary, higher elementary, and special schools of England and Wales:

	1915–16	1914–15	1913–14
Number of schools	21,476	21,547	21,498
Number of pupils	6,070,312	6,108,665	6,078,895
Average daily attendance	5,296,572	5,453,640	5,382,624

The secondary schools have not been appreciably affected by the war, the enrollment in 1915–16 showing even a slight increase. The total enrollment on October 1, 1916, was 198,611 in England and 20,078 in Wales. As to the universities, they have suffered as in the other warring countries, a serious falling off in enrollment. Unfortunately, no exact statistics are available. The following table gives approximate numbers of professors and students in 1916–17:

Universities of England and Wales in 1916–17.

Universities.	Professors and instructors.	Students.
Oxford	130	1,000
Cambridge	125	440
Durham	132	440
London	1,110	3,620
Manchester	260	1,060
Birmingham	[1] 100	700
Liverpool	140	700
Leeds	191	720
Sheffield	137	[2] 1,530
Bristol	210	450

[1] Including those absent on war service. [2] Includes evening students.

FRANCE.

Military occupation of schools.—The impromptu character of the military action with which the French Republic attempted to stem the invading forces in the initial stage of the war was naturally conducive to a greater disorganization of public life than in most other warring countries. The schools, especially in the immediate vicinity of the theater of hostilities, were severely affected. Besides a sudden dearth of teachers caused by the calling of the reserves, many schools were closed, transferred, or regrouped, owing to the occupation of school buildings for hospitals, cantonments, and military headquarters. The number of buildings thus occupied has been steadily diminishing since the conduct of the war became more regular and efficient, but many schools are still held by the military authorities. The French ministry of public instruction has collected statistics of military occupation of schools for the first three years of the war, given in the table below. They do not include the districts now traversed by the battle line.

School buildings under military occupation in France.

	Oct. 1, 1914.	Sept. 15, 1915.	Apr. 30, 1916.
Normal schools	135	125	111
Higher primary schools	200	173	159
Elementary and "maternal" schools	2,015	1,374	807
Total	2,350	1,672	1,077

No later figures than those in the last column of the above table are available at present, but it is reported that on June 15, 1916, the military and civil authorities promised to vacate shortly 13 normal schools, 20 higher primary, and 78 elementary schools. Negotiations for a further restitution of school buildings were at that time in progress.

Recuperation.—One characteristic fact in the effects of the war on education in France appears with great lucidity. In every phase of school life the war caused a sudden depression at the outset, followed by a steady recuperation. The figures of enrollment, of staffs, of school buildings, that dropped so suddenly in 1914, all show a tendency to rise to the prewar level, and in some cases have quite or almost approached it.

School lunches.—The school lunches, established in France long before the war (1903–4), have undergone during the war a rapid development. The funds for the lunches are provided partly by the State and the communes and partly by private citizens, the latter often contributing the provisions. The most popular dish served is vegetable soup which sells at 5 centimes a plate.

Adoption of war orphans by schools.—A recent movement, promoted by the vice-rector of the Academie de Paris, is the adoption of war orphans by pupils of elementary and secondary schools. The orphans thus adopted are known under the name "Pupilles de l'École." They are given food, shelter, and clothes by the pupils of the school that adopts them, until they become able to earn their own living.

Another interesting movement is the adoption of soldiers in active service by the schools. The names of soldiers having no relatives or friends are furnished by the relief societies, and once a soldier is adopted by a school, the pupils, guided by a teacher, shower upon him letters, small gifts, parcels of provisions, etc. The gratitude felt by the soldiers thus befriended is usually expressed in affectionate letters. It often happens that the adopted son of the school visits his benefactors when on a leave of absence.

CONTINUATION SCHOOL BILL.

The minister of public instruction introduced, on March 12, 1917, in the Chambre des Deputés a bill for compulsory continuation education for every boy and girl in France. The obligation extends over the period following the elementary school up to the age of 20 for boys and 18 for girls. The first part of the course, covering the ages to 17 for boys, and to 16 for girls, both inclusive, consists of (*a*) physical training, (*b*) French language, history and geography, and (*c*) applied science in agriculture, industries, commerce, domestic economy, or navigation, with practical exercises and manual work. The choice of the branches in the last group rests with the local boards whose creation is provided by the bill, but preference must be given to the branches corresponding to the prevailing local industries. The total length of the first part of the course is 300 hours per year, divided as follows: General education, 50 hours; vocational education, 150 hours; physical education, 100 hours.

The classes are to be held on working days, preferably outside the working hours. Physical training must be given on Sundays.

The second part of the course, covering the remaining part of the obligatory period, comprises the following subjects:

For boys: (*a*) Exercises in French language, historical talks, geography, civics, practical law, and political economy; (*b*) gymnastics, rifle firing, and preparatory military exercises.

For girls: (*a*) Exercises in French language, historical talks, geography and domestic economy; (*b*) manual work, lessons and exercises in hygiene, practical medicine and infant welfare.

The minimum duration of the second period is 200 hours per year, distributed as follows: General education, 100 hours; physical education (domestic science for girls), 100 hours.

The requirement does not apply to youths in public or private schools pursuing studies of a higher grade than those in continuation schools.

Compulsory attendance is to be enforced by a system of fines.

The ministry decided, according to recent advices, to invite the educators of the country to a public discussion of the bill in order to subject this important measure to the test of professional opinion before it becomes a law.

THE GRENOBLE PLAN OF VOCATIONAL EDUCATION.

Widespread interest in vocational education was in evidence in France long before the present war, and excellent results were achieved by private and local initiative, especially in apprenticeship schools. Recently this movement has been stimulated anew by the discussion of educational problems in connection with the war.

It is reported by Consul T. D. Davis, at Grenoble, under the date of September 1, 1917, that the Structural Manufacturers' Syndicate (Syndicat des Constructeurs) of Grenoble has organized professional courses for the metallurgical industries of the city. These courses will be obligatory for all apprentices between the ages of 12 and 18 years, commencing with September 10, 1917. They will be held from 6 to 8 o'clock in the morning. Mondays and Thursdays will be devoted to students from 12 to 14 years, Tuesdays and Fridays to those from 14 to 16, and Wednesdays and Saturdays to those from 16 to 18.

Apprentices will be furnished notebooks in which they will keep a permanent record of the courses. These notes will be graded and will furnish the basis of the classification of pupils and the awarding of prizes at the end of the school year. The time passed in class by the apprentice will be paid for at his regular wage, and in addition thereto for the time so spent 50 per cent of such wage will be entered to his credit on a savings bank passbook. This amount he can not draw until he reaches his majority without the authorization of the employer.

In the future the contract of apprenticeship will be binding between the employer and the father or guardian of the apprentice. Every apprentice who does not apply himself to the courses or who is discharged therefrom by the director will, as a general rule, be discharged also by his employer. Youths in search of a calling, and who are not employed, will be permitted to follow the courses upon payment of 50 centimes (10 cents) per month.

One hundred and thirty professors have been engaged to give instruction without remuneration. Each professor will give a class of 25 minutes upon a subject which has been furnished him 8 days in advance. These subjects will together complete an established program for the year's work.

The courses will comprise:

1. A moral and social course, conduct in the factory and on the street, conduct toward customers, respect for superintendents, care of material, etc.

2. A technical course in designing upon practical subjects, upon boards furnished by the mill owners.

3. Practical general courses in metallurgy.

4. Courses in French, grammar, geography, history, arithmetic, etc.

The cost of this instruction will be paid by the manufacturers in proportion to the number of workmen employed. Besides contributing to the maintenance of the courses, each week by turns an industrial will be designated to preside over the classes, and at the final examinations the employers will constitute the principal examiners.

Statistics.—Owing to the fragmentary character of the statistical data available, it is only possible to indicate the changes that have

taken place since the outbreak of the war by some partial returns. Thus in the case of elementary education there are available statistics showing the number of young persons who took examination for the leaving certificate of elementary schools. But by comparing these figures for several years, a fair idea may be formed of the extent of injurious effects of the war.

Persons admitted to the leaving examination of elementary schools.

Year.	Boys.	Girls.
1914	100,920	92,635
1915	91,522	89,607
1916	90,856	96,402

The number of elementary school-teachers drafted for the war services is 30,252, including pupil teachers, directors, and superintendents.

On October 25, 1916, the higher primary schools of France had the enrollment of 56,310, of which 29,487 were boys and 26,823 girls. An interesting illustration of the fluctuation in enrollment in these schools caused by the war is presented by the following table:

Enrollment in the higher primary schools in France.

Year.	Boys.	Girls.	Total.
1913	32,363	25,345	57,708
1914	24,344	21,613	45,957
1915	27,214	25,473	52,687
1916	29,487	26,823	56,310

UNIVERSITIES.

The decrease of enrollment in the French universities is very serious, as may be judged by comparing the two columns in the table below, the first column showing the enrollment in the early part of 1914, and the other in 1915–16. The list of universities in the table is not complete, as it includes only those institutions whose reports are at present available. But it may be assumed that the addition of the remaining universities would not materially change the general average decrease which, for the institutions given, is 72 per cent.

Enrollment in French universities.

Universities.	1914	1915–16
Aix-Marseille	1,136	640
Besancon	257	115
Bordeaux	2,653	[1] 618
Montpellier	2,120	620
Caen	615	103
Clermont	244	[1] 109
Nancy	2,140	356
Poitiers	1,245	328

[1] Incomplete.

As this depopulation seriously menaces the very continuance of some universities, efforts are made to secure a larger number of foreign students by offering the latter various special inducements. This movement is receiving a further stimulus from the rapprochement between France and the allied nations caused by the war.

The French ministry of public instruction has abolished the troublesome procedure of passing on every individual foreign candidate for admission to a French university. The old regulations required every foreign applicant to submit his certificate of secondary studies for approval by the ministry, and if such certificate was found valid for admission to the university without examination, the applicant was nevertheless obliged to pay the fee charged for university entrance examination. The new regulations, issued on November 16, 1916, gave once forever validity to all those foreign diplomas that are recognized for admission to universities in the countries where issued. The ministry is to prepare and furnish to the universities a list of foreign institutions satisfying this principle. By a later order, all fees previously charged for admission of foreigners to French universities were abolished.

Recently much consideration has been given by the French universities to facilitating the admission and meeting the educational needs of American students. The University of Paris is preparing a special course for Americans coming to France to learn the language, literature, art, and history of France. The course will not lead to any diploma, as it is merely intended to satisfy the demand for a French national course.

The social side of students' life has also been a subject of sympathetic attention on the part of the French universities. An association of professors called "Accueil Français" has been formed to look after the well-being of American students, to introduce them into French families and French society, where they may acquire the knowledge of the real France, so different from the impressions formed in the streets and cafés.

GERMANY.

On the 1st of June, 1916, the minister of public instruction in Prussia announced that 6,117 teachers had fallen in the war, not including the great numbers of normal students. At the same time, 51,000 Prussian teachers, or 52 per cent of the total, were at the front.

The German Teachers' Union, an organization of 125,000 teachers, has imposed an annual tax of 8 marks on all its members in order to provide pensions for widows and orphans of the teachers killed in the war. The amount of pension is 400 marks annually for a widow and 150 marks for each child. On December 1, 1915, there were in Germany 1,600 widows and 1,800 orphans in need of such assistance.

The loss of teachers from the schools is severely felt, as indicated by the fact that 128,725 classes had in 1911 only 117,162 teachers, and the Prussian Government was already before the war endeavoring to find the means of recruiting the profession. For this purpose the decision had been reached that it would be necessary to establish new normal schools, provide for a maximum of students for those already in operation, employ women in the schools for boys, and admit into the teaching force young men provided with certain diplomas even if they had not been trained in the normal schools.

A ministerial circular of July, 1916, orders the substitution in primary schools of women teachers for men. This measure will be carried out as follows: In schools where there are only girls, two-thirds of the positions *must* be given to women; in mixed schools, one-third; schools for boys *may* employ women teachers. Commenting on this circular, the director of primary instruction in Prussia explained that the measure was not intended to change the established school policy in favor of women teachers, but was merely a temporary expedient caused by the war.

Juvenile misdemeanors.—Owing to the lack of proper surveillance, as well as to certain psychological causes, school children in Germany have become, during the war, unusually mischievous and unruly. This condition has been reported to the German educational men by various localities, and in some districts remedial measures of considerable severity have already been taken.

Recently Berlin school authorities adopted the following resolution:

> In view of the fact that numerous cases, mentioned at this meeting, have proved that the behavior of school children is becoming increasingly bad, we request that orders shall be given (1) for the police and the guardians of order and the law to take energetic measures on their own initiative against all shamelessness, mischief, and roughness on the part of children in the streets; (2) to prevent any restriction of the lawful right of punishment which belongs to the teacher; (3) that the educative influence of the school may make itself evident in their behavior to older persons who have the courage to take action against the insubordination which is exhibited by the young every day in the houses, court yards, and streets of our city; and (4) to see that the school police intervene much more speedily and energetically.

Sending children to the country.—The Vorwärts states that at a meeting of the German Union for the Care of School Children, held in Berlin recently, it was announced that a mass deportation of children into the country had been planned, in order to give ailing children of the three upper classes in the popular schools several months' stay in the country. It is believed that this will afford relief from the food difficulties in the towns and better food for the children in the country, with possibly some help for agriculture, as the children, with the advantage of better health, will be able to assist in the lighter agricultural tasks. A comprehensive organization for greater

Berlin comes into existence shortly with this object, and it is hoped that other great towns will adopt the same procedure.

In some districts, it is known from other sources, children have already been transported to the country with good results. This practice has also been tried in the occupied territories of Poland and Lithuania, where the food situation is even more serious than in Germany.

Among educational developments not directly resulting from the war, but greatly stimulated by it, is the Einheitschule movement. As has been stated in previous reports, the Einheitschule represents a comprehensive scheme for reconstruction of the educational system of Germany with a view to linking up the public school education with the higher orders of learning and thus opening positions of leadership and distinction to all social classes. A steady progress is recorded in this movement by latest advices.

In June, 1916, the Prussian educational press spoke with confident anticipation of an early action by the Government in promulgating the demanded reform. On August 30, 1916, the Prussian Government, in fact, issued new regulations pertaining to the admission to secondary schools, but the change effected by them was very slight. They dealt only with the subjects and standard of attainment required for admission, at the age of 9 to 10 years, into the Sixta of the secondary schools. The main feature of the reform was the reduction of requirements in grammar and arithmetic.

This measure was a disappointment to the advocates of the reform. It was pointed out that the regulations issued by the ministry only benefited the "Vorschulen" (the exclusive preparatory schools, serving as main feeders for the secondary schools) by relieving their pupils of so much cramming, but did not improve the opportunities for public-school pupils.

Early in 1917 the minister addressed the following questions to all district inspectors:

(1) In what elementary school organizations can a good pupil pass into the Sixta of the secondary school without necessitating special arrangements or alterations in the school program?

(2) If such organizations do not exist, what changes would have to be made in the program to render these transfers possible?

(3) Can such changes be made without disadvantage to the other students? If not, suggestions should be made for special arrangements to meet the needs of the gifted pupil.

In the course of the appropriation debates in the Prussian Diet in March, 1917, the minister announced that experiments had been made at Königsberg, by the ministry itself, and at several other places by educators interested in the reform, with the object of bringing the programs of the public school on one side, and the

secondary school on the other, to the point where the transfer of pupils would be practicable. Of these experiments the most interesting is that tried at Mannheim, Baden. The children are admitted to the elementary school at the age of 6. During their first year at school they are classified as follows: (*a*) Normal; (*b*) unfit to follow ordinary curriculum; (*c*) backward, owing to special circumstances. The last two groups are placed in parallel classes. A number of children of the normal category who are found especially gifted, as well as those who are desired by their parents to proceed to secondary schools, are separated into supplementary classes where they are prepared for admission to a gymnasium or a real-gymnasium. At the end of three years they are fit to be admitted into the Sixta of the best secondary schools.

It was also attempted to modify the course of the gymnasia and the Realschulen so as to link them with public schools, and two such institutions were to be established as an experiment in Berlin in October, 1917.

These steps, while insignificant in accomplishment, are regarded as important symptoms of the changed attitude of the ministry, which has previously gone on record as firmly opposed to the reform.

German schemes for reconstruction after the war, advanced by the current press, include various readjustments of education to this purpose. The reestablishment and extension of Germany's commercial relations would call for even more comprehensive commercial training than that already provided before the war. The study of foreign languages and conditions is to be given particular attention. French and English will remain the principal modern languages.

In addition, the introduction of Russian is contemplated in the schools of the eastern provinces of Prussia. In the best secondary schools, Turkish is to be taught, as a language of great utility in commercial relations with the eastern allies of Germany.

German universities.—The war has reduced the attendance at German universities to unprecedentedly low figures. The practice of the university authorities of keeping on the rolls all students drafted for war services has permitted them to report a relatively high enrollment at the opening of every school year. But the actual number of students receiving instruction in the universities is only a small fraction of the registered number. According to the Rheinish-Westfalische Zeitung of August 23, 1917:

> There are at present 63,915 students registered in all German universities [presumably in the summer semester, 1917]. Of this number 46,658 are in the war services. Of the 17,257 persons who appeared for enrollment on the first day of the present semester, some 1,300 were foreigners and 6,013 were women. A large majority of the remaining 10,000 odd are disabled in some fashion by the war. Thus, the number of male students who are not in, or have not been in, military service is quite small indeed. It must be remembered that another class will be called to arms in the course of the summer.

The following table shows the number of students at German universities for 1913, 1915, and 1917. The figures for 1915 and 1917 show the actual attendance.

Statistics of German universities.

University.	Number of students, summer session of—		
	1913	1915	1917
Berlin	8,383	4,211	3,000
Bonn	4,460	1,601	1,360
Breslau	2,790	917	1,054
Erlangen	1,291	314	247
Freiburg	3,163	467	330
Giessen	1,436	[1] 1,176	290
Göttingen	2,853	790	762
Greifswald	1,443	251	453
Halle	2,765	548	575
Heidelberg	2,617	708	852
Jena	2,060	535	612
Kiel	2,266	397	482
Königsberg	1,646	443	525
Leipzig	5,171	1,413	987
Marburg	2,406	611	724
Munich	6,655	1,743	1,958
Münster	2,206	848	717
Rostock	1,005	214	271
Strassburg	2,037	516	467
Tübingen	2,234	350	445
Würzburg	1,456	402	311
Frankfort	.....	715	673

[1] Total number registered. Actual attendance unknown.

BELGIUM.

The situation created in Belgian education by the war was so extraordinary that those responsible for the provision of educational facilities for Belgian children found themselves confronted with problems never before encountered. Thousands of Belgian children fled before the invading German armies with the three main streams of refugees, which finally found shelter in France, Netherlands, and England. Many of these children were accommodated in the public schools of the respective countries of their temporary residence. But it was found that instruction in a strange language and following alien methods was of little value to the refugee children, many of whom had already passed a part of the elementary school course in Belgium. The Belgian Government was therefore obliged to establish special schools in France and the other countries to meet the peculiar educational wants of these children.

The first steps in this work were made by the Queen of Belgium, who founded school colonies in the vicinity of Panne, back of the Belgian battle line. These schools remain under the personal direction of the Queen.

Soon after the stabilization of the fighting front in Belgium the Belgian Government, in cooperation with the French authorities, established in the neighborhood of Paris and in Normandy 48 school colonies, accommodating about 5,000 children and engaging the services of 150 teachers. Some of the buildings were rented, but many

were offered gratuitously by the French Government or by private persons. The expenditure is met partly by the Belgian Government and partly by the French.

The instruction in the colony schools follows the Belgian prewar programs. To help reduce the expenses, the girl pupils wash, sew, and cook for the colony, while the older boys raise vegetables for the colony table.

The colonies are distributed as follows: Twenty-one colonies near the city of Paris, 6 in the neighborhood of Rouen, 18 near Yvetot, and 3 near Pas-de-Calais. There is also a vocational continuation school at Blaru-les-Port-Villez for Belgian boys 14 to 16 years of age.

These colony schools are for the French-speaking Belgian children. The Flemish children are taught in schools with their own language of instruction, of which there are in France 88, with 141 classes.

The Belgian Government also maintains 64 primary and 12 secondary schools for Belgian children in England, and subsidizes 46 similar schools in the Netherlands.

Another important educational field to which the Belgian Government has devoted its attention is the reeducation of maimed soldiers. In this work excellent results have been achieved, which have attracted the attention of the authorities interested in this work in other countries.

The initiative in the establishment of schools for the maimed came from M. Schollaert, late president of the Belgian House of Representatives, who created the Depôt des Invalides Belges at Sainte-Adresse. In July, 1915, another institution of this type was established at Port-Villez. At present many more schools for crippled soldiers are maintained by the Belgian Government in France, England, and Netherlands. They are all well equipped and command the services of expert instructors. The work done in these schools is too complicated to be described in a brief survey. It combines the features of medical treatment, psychological reaction, ordinary school-teaching, and vocational training. The work is naturally in the experimental stage, which precludes any stability of methods, but the results thus far achieved are highly satisfactory.

The part of Belgium under the German occupation was made dependent for its educational development upon the German authorities. The four Belgian universities are closed, the students having refused to attend them until the country is free from the invader. The professors have also refused, in spite of repeated German entreaties, to give instruction to the young men left in the country, who would thus enjoy an undeserved advantage over those serving in the trenches.

Elementary and secondary schools are open, but in reduced numbers, owing to military occupation of a great number of school buildings.

V.

RECOMMENDATIONS.

The following recommendations were presented by the Commissioner of Education in his annual statement to the Secretary of the Interior:

1. An increase in the salaries of chief clerk, editor, statistician, specialist in land-grant college statistics, specialist in higher education, and other specialists, and the removal of the limit on amount of salaries which they may be paid from lump-sum appropriation for rural education, industrial education, and school sanitation and hygiene. The duties of these positions require the services of men and women of such kind and degree of ability as demand salaries considerably higher than are now paid in this bureau.

2. An assistant commissioner, who should also be a specialist in secondary education and should serve as chief of a high-school division of the bureau. The duties of the office make it necessary for the commissioner to visit distant parts of the country and to be absent from the office frequently many days at a time. There should be an assistant commissioner to carry on the work in the office during his absence and to relieve him of much of the routine work of the office, so that he may be able to give more time and attention to the larger problems of education and to direct more effectively the more important work of the bureau. Probably the most important phase in public education in the United States at present is that of the secondary schools. The high school is, or should be, the heart and center of our school system. The problems of the high school are more difficult and their solution more urgent than those of any other part of the school system. The head of the high-school division of the bureau should, therefore, be a man of great ability. By combining the offices of assistant commissioner and of specialist in secondary education it should be possible to pay a salary sufficiently large to obtain the services of such a man.

3. Additional specialists in higher education, including education in universities, colleges, schools of technology, schools of professional education, and normal schools. The constant and increasing demands from these schools for the help of the bureau in making surveys and for advice as to their reconstruction and better coordination are larger and far more numerous than it can meet with its present force. There is special need of an able man, familiar with agricultural education and the problems of Negro education in the South, to devote his entire time and attention to the colleges of agriculture for Negroes in

the Southern States. Such a man might easily make the use of the $1,109,198, of which $282,121 are appropriated by the Federal Government, from 25 to 50 per cent more effective than it now is.

4. Additional specialists in school and home gardening. The proper education of many millions of children, and even the possibility of their attending school at all during the years in which attendance at school is most valuable, depend to a very large extent upon the general adoption of the work which the bureau is promoting through this division. It is very important that there should be in the bureau a sufficient number of specialists in this subject to visit all cities, towns, and manufacturing villages in the country, advise with their school officials and teachers, and assist in directing the work of teachers until the plan is well enough understood, and there are enough trained teachers that work in any city or town who may go on without outside direction, or until the several States have made provision for the direction of the work from their offices of education. The enactment of the national child-labor law prohibiting the employment of children under 14 years of age in mills, mines, and quarries must result in enforced idleness of hundreds of thousands of boys and girls and in unnecessary hardships to them and their parents, unless there is found for them some form or forms of suitable employment economically profitable and at the same time educational. Results obtained through home and school gardening confirm the belief that both economically and educationally this is one of the very best forms of employment for children between the ages of 8 and 14 years. The demand for increase in food production because of the war emphasizes the economic importance of this. A group of 10 or a dozen men and women in this division, with the help of one-half as many stenographers, typists, and other clerks, could within a few years bring about the establishment of this most valuable phase of education in all or most of the cities, towns, and manufacturing communities of the country.

5. An increase in the number of specialists and assistants in rural education and industrial education. The few specialists now employed in these subjects are wholly unable to do more than a small part of the work needed. States are asking for expert advice in regard to school legislation and the improvement of their school systems. States, counties, and local communities want comprehensive and detailed school surveys. There is need and demand for such general and authoritative studies of school administration, courses of study, methods of teaching, and adaptation of the work of the schools to the life and needs of the communities which they serve as can be made effectively only by a large group of men and women of the best ability working under the direction of the Federal Government. The passage of the Federal vocation act, the so-called Smith-

Hughes Act, and the creation of the Federal Board for Vocational Education relieves the Bureau of Education to a certain extent of responsibility in regard to vocational education in certain classes of schools and for certain classes of persons, but at the same time it emphasizes the importance of the work which the bureau should do for vocational education in other schools and for other classes of persons.

6. The addition of two or three specialists to the newly formed division of commercial education for the investigation of problems of commercial education and to assist in making plans and finding means for the preparation of our young people for participation in the larger commercial life upon which the country is now entering. The rapid expansion of the foreign commerce of the United States, because of the war and for other reasons more permanent, makes the need for this division more pressing than when it was first recommended some years ago.

7. More adequate provision for the investigation and promotion of school sanitation and hygiene and the physical culture and development of pupils. Nearly 20,000,000 children spend a good part of their time each year in public and private schools in the United States. They come to these schools that they may gain preparation and strength for life. In many of the schools the heating, lighting, ventilation, and other means of sanitation are so poor that instead of gaining strength for life they have the seeds of disease and death sown in their systems. In many other schools the daily regimen is such as to cause the children to lose a very large per cent of that which they might gain with a better regimen. From State, county, and city school officers, in all parts of the country, thousands of requests come to the bureau for information and advice in regard to these matters. The bureau should be able to give accurate information and sound advice regarding various phases of this subject. The establishment of health and right health habits must be considered a most important and vital factor in any education that is to fit for life. Provision for such games, plays, drills, and other exercises as will develop physical strength, bodily control, and endurance is essential to the schools of any nation that would maintain for all its citizens a high degree of preparedness for the duties both of peace and of war. Facts revealed by the physical examination of volunteers for the Army and the Navy and of selected men in the Army show most clearly the need for this service.

8. The formation of a division, with a group of able specialists and assistants, for the investigation of problems of education and school administration in cities and towns. The drift of population to the cities and towns continues, and the proportion of urban population to rural population is increasing rapidly. Almost one-half of

the children in the United States now live in cities, towns, and densely populated suburban communities. In some sections of the country a very large proportion of these children are the children of foreign-born parents. All this adds to the complexity and difficulty of the problems of city-school administration, especially in the larger cities. Many hundreds of requests for advice and information in regard to these problems come to the bureau every year. At present there is no one in the bureau whose special duty it is to respond to them. Within the last few years requests have come to the bureau for comprehensive educational surveys in dozens of cities, and many other cities have appealed to other agencies for work of this kind because their superintendents and boards of education knew that this bureau was not equipped as it should be to do this work. If the right education of the 12,000,000 children who live in cities is a matter of interest to the Nation as a whole, then this bureau should be enabled to do effectively those things which no other agency can do to assist the school officers and teachers of these cities in making the work of their schools more effective. The large and increasing number of requests for comprehensive surveys of city school systems and for advice and assistance in the readjustment of courses of study and in regard to other phases of city school administration make it necessary for the bureau to be able to do this kind of work effectively if it is to retain the respect of school officers interested in this very large and important part of our school system as a reliable and effective agency for information, advice, and assistance.

9. The establishment of a division, with specialists and assistants, for the investigation of the education of exceptional children. There are in the United States more than 2,000,000 children whose education requires means varying widely from those in common use for the education of normal children. These children are to be found in cities, towns, and rural communities alike, and all school officers and teachers have to deal with them. The Bureau of Education can not be considered as performing its duties to all the population with impartiality until it has in its service men and women who can give accurate information and helpful advice in regard to the education of these children.

10. Provision for the investigation of the education of adult illiterates and the dissemination of information as to the best methods of teaching illiterate men and women to read and write and of extending the meager education of those who were denied the advantages of the schools in their childhood and youth. According to the census of 1910, there were in the United States more than 5,500,000 illiterate men and women and children over the age when they may be expected to make a beginning in the public schools, and there were many millions more barely able to read and write. This illiteracy is

a burden to society and a menace to State and Nation. Within the past few years much interest in the removal of this burden has developed. The response to the little attention which this bureau has been able to give to this subject indicates that States, local communities, individuals, and benevolent societies are ready to cooperate heartily with the Federal Government in any reasonable plans which may be devised and presented by this bureau for this purpose. Within the past two years the people of the country have become conscious of the special need for more adequate provision for preparing for American life and possible citizenship the large number of persons who come to this country from southern and eastern European countries. It is especially important that they be given opportunity for learning the language of the country and that they be induced to take advantage of this opportunity. States and cities must provide the means for this, but the task of working out effective plans and of assisting States and cities in putting them into operation belongs to the Nation as a whole, and this bureau is the Nation's logical agent for this work. For reasons easy to understand, the United States Army refuses to accept volunteers who can not read or write, but in some of the States from 10 to 25 per cent of the men selected by the draft are illiterate. Had it been made possible for this bureau to undertake the leadership of the campaign for the reduction and eradication of adult illiteracy at the time it was first recommended, this percentage would be much smaller than it now is.

11. A careful and thorough investigation as to the means of better education of children in their homes, and the dissemination of information as to the best methods for the early physical, mental, and moral education of children in the home, and for the better cooperation of home and school in the education of children of school age. Children of the United States are in school less than 4 per cent of their time from birth to 21. The home is the primary and fundamental educational institution. Schools and other agencies are only secondary. If education in the home fails, no other agency can make good the failure. With our changing civilization and social and industrial life, there is need for more careful study of education in the home. The bureau has already made a beginning in this work, but there is need of far more than it can hope to do without much larger equipment for it.

12. A specialist in educational theory and practice, to serve as a director of investigations in education, assisting National, State, and local committees and commissions and making available for them the large collections of material in the library of the bureau and elsewhere in Washington. National, State, and local associations appoint many committees, and States and cities appoint many commissions to investigate and report on various problems of education.

Many of these committees and commissions fail more or less completely for want of material and intelligent assistance and direction. The library of this bureau, one of the most complete of its kind in the world, contains a large collection of material for most of these investigations. The specialist here recommended could put this collection at the service of these committees and commissions and at the same time give much-needed assistance and direction. His services would also be valuable to other specialists in the bureau and to hundreds of individual students of education upon whose investigations the country depends for most of its knowledge of education. This recommendation has been repeated each year for five years. The need of such a person in the bureau becomes greater and more pressing each year. Most of the work of the bureau suffers from want of the assistance he could give.

13. An assistant editor. The editorial work of the office has increased more than sixfold within the past six years, and it must increase still more within the next few years. It is now impossible for one editor to perform satisfactorily all the required editorial work. The more careful editing of the reports and bulletins of the bureau which this addition to the editorial staff would make possible would save each year in the cost of printing much more than the salary of an assistant editor.

14. A specialist in foreign and domestic systems of education and an assistant in foreign systems of education. This bureau is undertaking to keep the people of the United States informed as to all important progress in education and in methods of teaching in all countries of the world. The radical revolution in education in all countries of the world which will follow the close of the war, and which has already begun in several of the more important nations, makes it imperative that this work be done thoroughly and well; if it is not, the educational interests of this country will suffer great and irreparable loss, and it can not be so done without the additional assistance indicated.

15. Two additional collectors and compilers of statistics. Material for prompt and reliable statistical reports can not be had by this bureau without occasional visits to State and city education offices and the first-hand study of their returns. For the progress of education in the United States and for such an understanding of State and local systems of education as will promote the desired degree of uniformity, it is very important that this bureau shall, in cooperation with State and city school officers, devise and execute plans for greater uniformity in reporting and assisting the several States in making their reports more comprehensive and complete. This is not possible with the small force the bureau now has for this work.

16. A comparatively large increase in the number of clerks, stenographers, copyists, laborers, and messengers to do the work of the bureau as it is now organized, and a still larger increase to do such additional work of this nature as may be made necessary by any enlargement that may be made in the staff of specialists.

17. An increase of appropriation for traveling expenses for the commissioner and employees acting under his direction. This is necessary to enable them to make original investigations in education in different parts of the country and to disseminate information by meeting with educational associations and other societies interested in education. Without funds sufficient to pay necessary traveling expenses the bureau can not do its work effectively, and must constantly be open to the charge of giving help where expenses can be paid rather than where help is most needed.

18. Means to enable the bureau to cooperate with schools ofeducation in colleges and universities, with normal schools, and with city and county school systems in making important investigations and definite experiments in elementary and secondary school education under scientific control. There is as much need for scientific experiments in education as there is for such experiments in agriculture or engineering. Although we are spending annually many hundreds of millions of dollars on public education, we have little accurate and definite knowledge about the value of various forms of education and methods of teaching, and we can have little more until provision is made for such scientific experiments as are here indicated. With a comparatively small amount of money the bureau might obtain the cooperation of individuals, institutions, and boards of education in making important investigations and experiments in education not otherwise possible without much larger expenditures.

19. Means to enable the Bureau of Education to cooperate with State and county school officers in establishing and maintaining model rural schools for the purpose of demonstrating the value of such forms of rural school organization, management, courses of study, and methods of teaching as may appear to be most desirable to be incorporated in the rural schools of the several States and communities of the United States.

20. A larger appropriation to enable the Secretary of the Interior, in his discretion and under his direction, and with the advice and cooperation of the Public Health Service, to provide for the medical and sanitary relief of the Eskimos, Aleuts, Indians, and other natives of Alaska. Careful investigations made with the cooperation of the Public Health Service have shown the necessity of immediate provision for the care of the health of the natives of this Territory and for the eradication of communicable diseases now prevalent in

different sections of the Territory which, if not put under immediate control, will soon destroy the lives of many of these people and spread among the white settlers. The addition of $12,500 to the appropriation for this purpose for the fiscal year, making the total of $62,500 for this purpose, has enabled the bureau to do more for the health of these people than ever before, but much still remains to be done. To do what is needed will require an annual appropriation of at least $100,000. An appropriation of $82,500 will be asked for the next fiscal year.

21. The bureau should be authorized to sell some of the 4,000 reindeer belonging to the Government and use the proceeds in distributing the remainder to those sections of northwest Alaska where they can be herded profitably, but where there are none now. The Alaska reindeer service, which was begun in a small way a little more than 20 years ago, has now reached large proportions, and has accomplished much for the support and for the education and civilization of the natives in the northwestern part of the Territory. The bureau wishes to extend at once the distribution of reindeer in the sections in which reindeer may be herded profitably, to give all the natives of this section the advantage which has already come to those living in settlements to which reindeer have been sent, and to complete this work so there may not be need for a continuation of the appropriation for this purpose. The annual appropriation of $5,000, much of which must be used for other purposes than distribution of reindeer, is not sufficient to enable the bureau to proceed with this distribution as rapidly as it should. Authority to sell male deer and use the proceeds for this purpose would hasten the distribution without additional cost to the Government.

22. The time has come when the natives in all parts of Alaska should be assisted and directed in the establishment and development of industries of their own, which will give them remunerative employment through much of the time in which they are now more or less idle and by which they may make for themselves a better support and gradually take over the larger part of the cost of their own schools and medical attendance. The success of the reindeer industry in the northwestern part of the Territory, and of experiments in other industries, on a smaller scale, in other parts of the Territory would seem to justify the use of a few thousand dollars a year for this purpose for the next 10 or 15 years. The sooner these people are made wholly self-supporting, the less will be the final cost of their support and education to the Government. A few thousand dollars judiciously expended for this purpose now will save hundreds of thousands of dollars later.

23. The annual estimates for appropriations for "Education of natives in Alaska," for "Reindeer in Alaska," and for "Medical

attendance of natives in Alaska," are usually put in the sundry civil bill, which on alternate years, in which the long session of Congress meets, is not considered until near the end of the fiscal year, and sometimes not until after the beginning of the next; but supplies for certain parts of Alaska must be shipped from Seattle in June or early in July in order to reach their destination. Buildings for schools or hospitals can be erected much better and at less cost in the summer than in the winter, and materials for such buildings should be shipped as early in the year as possible. Contracts for teachers should be made when possible in May and June. It is, therefore, recommended that these estimates be considered separately or in some other bill which is likely to receive final consideration earlier in the year.

24. For the printing of the annual report of the commissioner and the bulletins and circulars which should issue from the bureau each year there should be available not less than $100,000. The growing importance of education in our national life, the large expenditures for schools and other agencies of education, the increasing extension and differentiation of education to meet the new and increasing needs of industrial and civic life have created a demand for such information as is contained in these publications in many and widely varied fields of education. From no other source can this demand be supplied than from this bureau, and from this bureau it should be met as fully as possible. This will require the printing of a large number of bulletins each year, and many of these should be printed in much larger editions. The limit of 12,500 copies for any edition of a bulletin should be removed, so that it may be printed in such numbers as in the judgment of the Secretary of the Interior may be necessary. Fifty or a hundred thousand school officers can not be supplied from an edition of 12,500 copies of a bulletin on a subject in which they are all equally interested.

25. For the work which the bureau now does more room is needed, and still more will be needed as its staff of experts and clerks is increased. There is now need for more and better arranged space for the bureau's library, which is increasing from year to year. The Nation needs an educational museum, a kind of perpetual educational exhibit in which there may be found at any time, properly arranged and catalogued, typical courses of study, samples of school furniture and equipment of all kinds, specimens of school work, plans and photographs of buildings and grounds, and whatever else will be helpful in enabling students of education and school officers and teachers to gain an accurate and comprehensive knowledge of purposes, methods, and results of education in this and other countries, and assist them in forming ideas for the improvement of their own schools and school work. This museum should, of course, be under

the direction of the Bureau of Education and should constitute an essential part of its equipment. The work of the Federal Board for Vocational Education, of which the Commissioner of Education is a member, is so closely related to that of this bureau that it would add to the efficiency both of the board and of the bureau if they were housed in the same building, so that they might have easy access to the same library and communicate easily with each other; and there are other important activities of the Government which could be carried on more effectively under the same conditions. I therefore renew the recommendations contained in previous statements that plans be considered at once for the erection of a building that will afford ample room for the work of the bureau and allied activities of the Government, house the bureau's library, and furnish ample room for such collections of materials as those mentioned above.

INDEX.

○