

DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1919, NO. 12

EDUCATION IN THE TERRITORIES
AND DEPENDENCIES

[Advance Sheets from the Biennial Survey of Education
in the United States, 1916-1918]



WASHINGTON
GOVERNMENT PRINTING OFFICE

ADDITIONAL COPIES
OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT
10 CENTS PER COPY

EDUCATION IN THE TERRITORIES AND DEPENDENCIES.

CONTENTS.—Education in Porto Rico—Education in the Canal Zone—The Virgin Islands—Hawaii—The Philippine public-school system—Education in Alaska.

EDUCATION IN PORTO RICO.

By PAUL G. MILLER.

Commissioner of Education for Porto Rico.

The work of the public schools has been greatly handicapped during the past year through conditions brought about by the World War. The department has lost many of its most efficient men, who went into the military service. Due not only to war conditions, but also to the prevailing low salaries, frequent changes in the teaching corps have taken place, with the resulting loss of efficiency. The rural teaching force alone underwent 730 changes, whereas in the city of San Juan there were no less than 110.

In spite of these obstacles the work of the schools has been characterized particularly by the various activities carried on by supervisors, teachers, and pupils toward promoting the success of the United States and its allies in the World War. The war activities of the schools will ever stand out conspicuously as witnesses of the loyalty and patriotism of all. In this respect the work may be justly counted as a year of achievement and accomplishment unparalleled in the history of Porto Rico.

Special attention has been devoted to increasing the food supply through school and home gardens, both rural and urban.

For the promotion of community and war propaganda, and especially for agricultural development, committees were organized which conducted public gatherings. Parent associations, also, held public meetings; teachers visited rural homes; and in cooperation with the food commission rural conferences were held. These activities will be elaborated under their respective heads.

The chapter school committee of the Porto Rico chapter, American National Red Cross, effected local organizations of the Junior Red Cross in every municipality. In response to a special appeal made

by the commissioner, 2,567 teachers out of a total of 2,649 in the service at the close of the year made a special contribution to the second war fund, which, together with amounts given by the office staff of the department, the supervisory force, employees of the university, and certain employees of school boards amounted to \$6,665.89.

Porto Rico has an estimated population of 1,223,981, of whom 427,666 are of legal school age, i. e., between 5 and 18 years, and 215,819 of compulsory school age, i. e., between 8 and 14 years. The total enrollment in all public schools, excluding duplicates, was 142,846. Of these, 84,570 were enrolled in rural schools; 50,060 in elementary urban schools; 3,346 in secondary schools; 3,613 in night schools; and 1,257 in the University of Porto Rico. Of the 141,589 pupils enrolled in schools under the department, 80,063 were males and 61,526 females; 113,462 were white and 28,127 colored. In addition to the pupils enrolled in public schools, 7,248 children attended private schools.

The total enrollment was 33.1 per cent of the total population of school age and 65.6 per cent of the population of compulsory school age.

The average number belonging in all schools was 115,689; the average daily attendance 106,441, or 92 per cent. Of the 141,589 pupils enrolled, 2.4 per cent were found in secondary schools, 35.3 per cent in elementary urban schools, 59.8 per cent in rural schools, and 2.5 per cent in night schools.

These pupils were taught by 2,715 teachers, of whom 909 were men and 1,806 were women; 174 were teachers from the United States proper and 2,541 were native Porto Ricans; of the total number, 2,230 were white and 485 colored.

Of the elementary pupils, 62.7 per cent were promoted to the next higher grade, as against 60.1 per cent the preceding year. These figures are based upon the total enrollment. Using the average number belonging as a basis for calculating promotions, 81.8 per cent of the elementary urban pupils were promoted and 72.6 of the rural pupils, giving an average of 76.2 per cent for all elementary schools.

Eighth-grade diplomas were awarded to 2,035 pupils, and 347 high-school pupils received diplomas.

There were 42 new graded teachers added to the profession by means of licenses granted upon the basis of normal diplomas issued by the University of Porto Rico; 30 rural licenses were granted to persons who had completed the special two-year course for rural teachers in the normal department of the University of Porto Rico; and four rural licenses were granted to persons who had obtained the diploma in agricultural science issued by the College of Agriculture and Mechanic Arts.

Summer schools for the training of rural teachers were held at Río Piedras and Mayaguez, at the close of which 74 rural licenses were issued. Special examinations for the licensing of rural teachers were held also in October and November, resulting in the granting of 240 more rural licenses. This number, however, was not sufficient to supply the schools of the island, and it became necessary to issue 169 provisional licenses before the close of the year.

The schools of Porto Rico were conducted in 1,712 separate school buildings, representing 2,845 classrooms. Of these buildings, 540 are public property and 1,172 are rented; 316 are situated in urban centers and 1,396 in rural barrios. As to their character, school buildings range from the shaw-covered shack in remote rural barrios to thoroughly modern concrete structures in the larger towns and cities. During the past two years 88 new sites for school buildings have been acquired, 20 in urban centers and 68 in rural districts; 58 school buildings, 17 urban with 141 rooms, and 41 rural with 49 rooms, have been erected during the same period.

The total assessed valuation of property is \$243,736.262, or \$199.01 per capita of population.

The expenditure for educational purposes last year was \$1,634,313.99 from insular appropriation and other funds and \$730,947 from school-board funds, making a total of \$2,365,260.99.

The total per capita expenditure per pupil was \$12.63 for elementary education and \$41.92 for secondary instruction. The per capita expenditure per inhabitant was \$1.93.

SCHOOL ALLOTMENT—URBAN VERSUS RURAL SCHOOLS.

Of all the children of school age in Porto Rico, 344,615 live in the rural barrios. Of this number, 84,570, or 24.5 per cent, were enrolled in the rural schools during the past year, whereas of the 91,604 children of school age living in the urban centers, 53,406, or 58.3 per cent, were attending school. This takes no account of a total of 3,618 enrolled in the night schools.

The above summary goes to show that in the urban centers over one-half of the population of school age is attending school, while in the rural districts this holds true for but one-fourth of the population. In other words, in order to enroll the entire population of school age, the number of urban schools would have to be multiplied by 2 and the number of rural schools by 4. Such an increase is totally out of question for the present in view of the economic status of the island. The fact that but one-fourth of the rural population of school age is at present enrolled in the rural schools by no means signifies that the remaining three-fourths are deprived of an opportunity to attend school. The reverse is nearer the truth. Probably

no less than three-fourths of the rural population attend school for a limited number of years, while perhaps less than one-fourth fail to avail themselves of the opportunities that are at hand. Furthermore, the period of school attendance in the Tropics is necessarily shorter than in a northern climate. Not a few of our young men and women marry and assume family cares before they have attained the maximum school age. Any attempt, therefore, to enroll the total population of school age is, and will ever be, impossible of attainment in Porto Rico.

The relative needs of the urban and rural populations have always been calculated on the figures given by the island census without regard to actual conditions, and the tendency as a result has invariably been to favor the rural population at the cost of the urban centers. This is shown by contrasting the provision for common schools in the budget of 1913-14 with that of the budget for 1917-18.

Urban and rural teachers provided for.

Teachers.	Year 1913-14.	Year 1917-18.	Increase.
Total urban teachers provided for.....	985	997	<i>Per cent.</i> 1.2
Total rural teachers provided for.....	1,141	1,660	45.4

The results of this policy have been that, whereas in many municipalities rural teachers are unable to fill their schools to their normal capacity, in many of the urban centers, notably in such towns as San Juan, Ponce, Caguas, Bayamon, and Aguadilla, hundreds of children who clamor for admission at the opening of each school year have to be turned away. The absolute shortage of urban schools has been more especially felt of late years as a result of the city growth and the abolition of the double-enrollment plan.

RURAL EDUCATION.

The number of rural schools opened was 1,440. This takes no account of the rural schools opened in the semiurban zone and in some of the urban centers, as these schools follow the graded course of study and are considered part of the urban school system. The withdrawal of teachers, both urban and rural, to go into military service and into other work, has been one of the most perplexing features. An unusual number of graded and rural teachers resigned, and as vacancies in the corps of graded teachers are generally filled by the promotions of rural teachers who hold the graded license, the rural schools were the ones particularly affected. A total of 730 changes took place in the rural schools last year. This means

that approximately one-half of the rural schools have had more than one teacher during the year.

The numerous changes made the work of the supervisory force and of the department particularly difficult. To train a total of 730 new teachers, practically half the rural teaching force, to a satisfactory standard of efficiency is a problem to tax the industry, patience, and skill of the best supervisory force. The policy of the department under such circumstances has necessarily been to emphasize constructive supervision. Professional study and reading courses have been established; frequent teachers' meetings and demonstration classes have been held in all the districts; and everywhere much of the supervisors' time has had to be devoted to the strengthening of this unduly large proportion of new rural teachers.

For the purpose of further awakening public interest and of extending the usefulness of the rural schools, the rural uplift campaign initiated three years ago was given continued emphasis. All supervisors of schools gave particular attention to rural school organization, paid longer and more thorough visits to rural schools, held frequent conferences for rural teachers, and ultimately checked promotions in all rural schools grade by grade by making a personal examination of every pupil recommended for promotion. A much greater proportion of rural teachers lived in the *barrios* where their schools were located, and such teachers became a vital factor in neighborhood life. Teachers living in the *barrios* not only gave to the patrons of the districts an example of sanitary and wholesome living, but they often made the schoolhouse a social center, where parents' meetings, evening schools, and lectures were held. Where agriculture was stressed, teachers became the natural leaders of the food-supply propaganda, which has increased the available local food supply considerably. Libraries were opened for country districts, and teachers paid many visits to the parents in their homes.

The department has directly aided many of the supervisors by sending speakers to parents' meetings, which, as a rule, were held on Sundays. Supervisors report that the attendance at these Sunday meetings reached as high a figure as 400 persons. To-day the peasant of Porto Rico has come to realize that the rural schools belong to him as much as to the landowner or rich planter of his district.

To carry out this rural campaign has required much sacrifice on the part of the supervisors and rural teachers. To teachers accustomed to the comforts of city life, the isolated life of the country has entailed no small hardship, but results have compensated them for such unselfish service. Many supervisors who have stressed the rural campaign have given up almost all their Sundays to this work. While such labor is onerous, it is only by such devotion to the cause that the ultimate redemption of the illiterate peasant will be achieved.

Out of 1,440 rural schools, 1,262, or 87 per cent, were on the double-enrollment plan; i. e., they have one group of pupils, up to a maximum of 40, during the three hours of the morning session and another similar group in the afternoon for the same length of time. This arrangement allows the pupils to take their noonday meal at home, and also makes it possible for the older ones among them to help their parents at home and on the farm during part of the day. This is a very important consideration during the coffee-picking season, from September to December, when the entire population of some of the districts, old and young, is employed in the coffee harvest. This double-enrollment plan, while it has its serious disadvantages, insures a better enrollment and attendance.

The total number of pupils enrolled in the rural schools during the year was 84,570; and of this total, 48,821, or 58 per cent, were promoted. This low percentage of promotion is largely accounted for by the frequent changes in the teaching force and the closing of many schools for want of teachers.

CONSOLIDATED RURAL SCHOOLS.

A familiarity with the rural-school situation leads to the inevitable conclusion that the need is for *better schools*, rather than for *more schools*. The emphasis must be placed on better buildings, better equipment, on a fuller and necessarily longer course of study, with special provisions for the teaching of home economics, manual training, agriculture, and other industrial subjects. This will demand better teachers and, as a logical accompaniment, higher salaries. The consolidated rural school brings together three, four, or more rural schools within one building or common center, in contrast with the present isolated school plan, whereby an underpaid and often poorly prepared and immature teacher has to struggle as best he can with three, four, or more grades under his sole charge and with a large enrollment on the half-day plan. Such consolidated rural schools should eventually become the community centers of their barrios; and rural libraries, noonday lunches for the underfed pupils, medical inspection, and entertainments are some of the community improvements that would be brought within the scope of practical, successful achievement.

GRADED SCHOOLS.

The work of the graded schools has been carried on along very much the same general lines as in former years. The more important changes have been the following:

1. The teaching of English on a strictly oral basis, which last year was introduced in the first grade of the urban schools, has been ex-

tended to the second grade of the urban and to the second and third grades of the rural schools as well. In addition to the First Grade Manual in Oral English, which was published last year, a manual for the second grade has now been put into the hands of all primary teachers. A Third Grade Manual has also been under preparation and has been given a thorough preliminary test in some districts.

The shifting from reading to conversation as a medium for the teaching of English in the primary grades meets the needs of pupils and leads them along a natural and easy road to the stage where they are enabled to carry on the bulk of their studies in the English language, as is required of them in the intermediate and grammar grades. It brings the Porto Rican child in this particular respect one step nearer to the level of the American child who hears and talks English four or five years before he is required to read it.

2. The policy of the department to provide pupils with books specially designed for them was further advanced last year by the introduction of a specially prepared textbook in arithmetic for the use of third and fourth grade pupils. The text is in Spanish. It supplements and carries forward the beginning made last year when a special manual for the teaching of arithmetic in the first and second grades was prepared and issued to the teachers.

3. A special pamphlet on moral and civic training has also been prepared and issued. Formal instruction in this subject has now been made a brief but regular feature of the daily program of our schools. The need for something of this sort was realized a long time ago. The past history of the island, the limited experience of the people in self-government, the illiteracy which still prevails in the country districts, and the relatively few agencies, outside of the public schools, making for the enlightenment and the upbuilding of the people along moral and social lines, brought the need for such a course into plain evidence.

The improvement which has taken place in the primary grades as a result of the introduction of a better coordinated system of teaching such elementary subjects as Spanish, English, writing, and arithmetic, in closer harmony with the needs and the life experience of Porto Rican children, has everywhere been a remarkable one. Better general results are evident, and this appears in the percentage of promotions from these lower grades.

This improvement is further due to the introduction and use of specially prepared textbooks in which the standpoint of the Porto Rican child, his experience, and his needs are given due consideration. The department plans to extend gradually the policy of using specially prepared books and to exclude those which do not provide for the special requirements of the Porto Rican child.

HIGH AND CONTINUATION SCHOOLS.

Secondary school work was carried on in 11 high and 26 continuation schools, not including the University High School at Rio Piedras, nor the preparatory department of the College of Agriculture and Mechanic Arts, Mayagüez. In addition to the 11 regular four-year high schools, ninth grade work was taught in 26, and tenth grade work in 11 municipalities.

The total enrollment in secondary schools was 3,346, of which number 1,584 were boys and 1,732 were girls. These figures show an increase in the enrollment over that of any previous year, but a relative decrease in the number of boys enrolled as compared with the preceding year. The enrollment was distributed as follows: Twelfth grade, 382; eleventh grade, 601; tenth grade, 898; ninth grade, 1,465.

The total number of graduates from the 11 department high schools was 347: from the general course, 310; from the commercial course, 37. The University of Porto Rico issued 71 secondary diplomas.

Difficulty in securing texts and supplies because of delays in transportation, the shifting of teachers because of vacancies brought about by war conditions, and the decrease of enrollment due to economic conditions, made the year a trying one to teachers, principals, and supervisors. Notwithstanding these adverse conditions, the quality of work done was generally satisfactory, and no cases of infraction of discipline marred the year's work.

The Central High School at San Juan continued to occupy a building entirely unsuited for a school. Lack of teaching force and schoolroom capacity made it necessary to refuse admission to many applicants, and as a consequence ninth grades were organized at other school centers in San Juan; but even by the organization of these extra ninth grades many ambitious young people could not secure admission.

WAR WORK OF THE SCHOOLS.

The all-prevailing activity of the schools during the year was the work of teachers and pupils in connection with the World Wars. The complete mobilization of the vital forces and material resources of the Nation for the successful prosecution of the war which had been effected throughout the United States had likewise been put into operation here. Porto Rico, which had but recently been granted the privilege of American citizenship, could not remain indifferent to the conflict in which the Nation had become involved.

THE FOOD QUESTION.

Although in its commercial relations with the mainland Porto Rico during the fiscal year ending June 30, 1917, had a balance in its favor of 27 million dollars, largely as a result of its constantly growing exports of sugar, tobacco, and fruit—the exports under these three heads alone totaling \$70,468,907—it nevertheless depended upon the United States for a very large proportion of its food supply.

The war brought into striking relief all the disadvantages and dangers of Porto Rico's dependence upon the distant markets of the United States for her daily food supply and the need of taking immediate measures to place herself on a relative basis of self-support. It is owing to this that the appeal of the United States Food Commissioner, to save food and to add to the sources of its supply, carried special weight in the case of Porto Rico. The appeal fell on soil already prepared. To the incentive of patriotism there was added the all-compelling force of the instinct of self-preservation.

COOPERATION WITH THE PORTO RICO FOOD COMMISSION.

In the matter of promoting the agricultural interests, the department worked in cooperation and harmony with the local food commission. A total of 35 supervisors of agriculture were employed during the year. Twenty-five of these were special agents of the food commission and were paid out of its special funds. The remaining 10 were paid out of the funds of the department. All, however, were in equally close relations with the department, and all worked through and with the supervisors and teachers of the public schools for the improvement of the food situation. Teachers everywhere, those in the country districts, especially, served as distributing agents for the pamphlets and circulars issued by the food commission. Rural teachers acted as the local representatives of the commission, collected the necessary information, and made regular reports of the food situation of their respective barrios.

FOOD CONSERVATION WEEK.

All the wheat flour consumed in Porto Rico, a total of 310,516 barrels for the fiscal year 1916-17, was imported from the United States. Wheat being the cornerstone of the national food conservation campaign, it behooved Porto Rico to do its share in the conservation of this food product. As wheat does not grow in the Tropics, Porto Rico could only help by limiting its consumption of white bread. A further appeal was made by the food commission for economy in the consumption of such other imported foodstuffs as

were needed by the people of the allied countries. To bring about this result an island-wide campaign of education and propaganda became necessary. A direct appeal had to be made to the patriotism and good will of every inhabitant. A large part of this work naturally devolved upon the rural schools.

During "Food conservation week" a campaign was conducted by public-school teachers in every town and barrio of the island. The number of public meetings held during that week exceeded 2,000. Both urban and rural teachers made a house-to-house canvas to explain the meaning of the pledge card and to secure signatures.

A grand total of 122,826 pledge cards were signed through the efforts of the schools.

AGRICULTURAL AND PATRIOTIC PROPAGANDA.

The following summary will show the nature and extent of the campaign carried on by the schools:

1. Number of agricultural committees (Comités de Fomento Escolar y Agrícola) organized.....	1,177
2. Number of public meetings held by these committees.....	2,380
3. Number of parents' associations.....	831
4. Number of public meetings held by these associations.....	1,297
5. Number of rural conferences.....	2,157
6. Number of rural homes visited by teachers.....	60,038

These thousands of home visits and public meetings have made a deep and lasting impression on the people. The necessity of food economy, of increased food production, of improved methods of cultivation, and of planting a greater variety of products has been preached to the remotest rural barrio of the island.

Patriotic propaganda has also been stressed. A campaign of education to explain the causes and the aims of the war, its relation to the people of the United States and of Porto Rico, the duty of every citizen to contribute to the successful outcome of the conflict the fullest measure of his powers and resources, has been conducted from one corner of the island to the other.

WAR LITERATURE AND PATRIOTIC INSTRUCTION.

Teachers have found ample material, both for their daily classes and for their conferences with the people of their respective communities, in the literature that has been supplied them by the department and by the insular food commission. A number of pamphlets from various patriotic organizations in the United States were also mailed to the teachers. In addition the department procured a full supply of the monthly bulletins issued by the Commissioner of Education of the United States, entitled "Lessons in Community and

National Life," and incorporated these in the regular course of study in English and civics for all the upper grades of the common schools and for the continuation and high schools. "Democracy To-day," a collection of President Wilson's principal war addresses, as well as speeches by other statesmen, properly edited for class work, was used as a text in high-school work. Spanish copies of "How the War Came to America," published by the Committee on Public Information, were distributed to all teachers and school board members in order to enable them to become thoroughly posted on the issues on which the Nation entered the war.

The result has been that many of the teachers, and not a few of the older pupils have become efficient propagandists, ready and able to take part in the molding of public opinion along patriotic lines.

AGRICULTURAL COMMITTEES.

In order to popularize the movement for food conservation and for increased food production, a local committee officially known as "Comité de Fomento Escolar y Agrícola" was formed in every barrio. Each was composed of five influential citizens, preferably farmers of the more intelligent and progressive class. These committees met periodically in the schoolhouse and planned their work in close cooperation with the rural teacher and with the agricultural agent of the district. Each committee held public meetings for purposes of propaganda among the inhabitants of the barrio. The local teacher and a number of prominent people from the near-by town took an active part in the meetings. The supervisor of schools and the agricultural agent of the district also took part whenever their other duties permitted. A total of 1,177 of these committees were organized during the year, and they held a total of 2,350 public meetings.

PARENTS' ASSOCIATIONS.

The organization of parents' associations dates back three years. While a certain number of these associations were this year merged into the agricultural committees and in a way absorbed by them, many carried on their independent activities. A total of 831 such associations held 1,297 public meetings. While the subjects discussed had a special relation to the life of the school in its more limited educational or professional aspect, questions of general interest and especially those related to the World War did not fail to receive their due share of attention.

RURAL CONFERENCES.

In addition to the meetings held under the auspices of agricultural committees and parents' associations, all more or less local in

character, conferences of a more general nature have been held under the immediate direction of the supervisors of schools in all the towns and main barrios. Special speakers were secured for these conferences, both the insular food commission and the department of education sending representatives. The local municipal authorities, professional men, and many public-spirited citizens throughout the island gave their services as speakers. At the close of the year the commissioner of education sent a personal letter of thanks and appreciation to each of these. A total of 2,157 of these general conferences were held during the year.

Universal enthusiasm has been aroused by this island-wide propaganda. This is the first time in the history of Porto Rico that a campaign of education has been undertaken in behalf of the population at large. These meetings have served as popular forums in which questions of public interest have been brought to the attention of a people the majority of whom are still illiterate and who can not be reached by means of the daily press or any other agency except direct contact. Porto Ricans have come to realize the meaning of the great war, their responsibilities and their opportunity of demonstrating their loyalty to the Nation and to the cause for which it fights.

The success obtained in increased food production is most gratifying. Above all, the home garden movement holds special promise for the future.

During the past year there were established 1,312 rural and 83 urban-school gardens used for instructional purposes. Only 103 rural schools did not have school gardens, generally for lack of land. The schools fostered the cultivation of 5,548 urban home gardens and 21,145 in the country.

The large farm and plantation owners have come to realize the need for a greater variety of products. They now plant large acreages in corn, beans, potatoes, onions, and yautsas, whereas in the past they limited their activities to a few standard products, to cane, coffee, tobacco, and the like. Better methods of cultivation have been advocated and their importance is better understood. Certain sections of the island not only raise enough vegetables for their own needs but now produce a relative surplus for other markets.

Twenty-five agricultural exhibits held in various towns toward the close of the school year have attracted deserved attention, both for the quality and for the quantity of the products exhibited. Some of these exhibits compare very favorably with those held in the United States.

WORK IN HOME ECONOMICS.

The course of study in home economics, including both cooking and sewing, comprised four years of work, extending from the seventh through the tenth. This work was conducted in 42 municipalities.

A two weeks' summer school for teachers of home economics was held in August to study the new conditions and the new work for the ensuing school year.

Owing to changed living conditions, due to the war, the course of study in practical cooking was changed entirely. Since it was feared that communication with the mainland might be cut off, special bulletins were prepared to instruct students and their families in a diet that would make use of local food products. An effort was also made in these bulletins to increase local production of the necessary carbohydrates, proteids, and fats.

Recipes for the preparation of pie and bread were entirely omitted, quick breads and local substitutes taking their places. In all other recipes calling for wheat flour, starch extracted from native vegetables such as yautía and batata was substituted. A simple home-process was explained whereby the large percentage of starch contained in these vegetables could easily be extracted. Children learned to make use of this starch for thickening sauces, soups, and gravies, the starch serving as an excellent substitute for flour and the corn starch ordinarily used. Lard and butter were omitted from all recipes, and coconut fat, coconut milk, or coconut butter substituted. Coconut fat was extracted and bottled in the classroom. Frying was eliminated and baking substituted. In place of bread there were substituted baked or boiled yautía, baked or boiled batata, baked plátanos, casabe, sorullos, aiepas, gofio, hallacas, and corn bread. Slices of boiled yautía and boiled batata displaced bread in making sandwiches, for which as a filling peanut butter, shredded coconut, or a combination of these was used.

While the students of home economics were taught a year ago the possible use of local food products in the event of a food shortage, the sinking of the *Carolina*, brought home to the people the absolute practicality of such teaching, and increased interest in both students and outsiders developed with very gratifying success. As the result of a year's teaching along these lines, the number of home gardens increased materially. In nearly every town, every student of home economics had a garden. Gardens were planted and studied by girls as a war measure so that women might learn to produce as well as to prepare food.

An exhibit of the year's work was held in each town at the close of school. Collections of starch, wheat bread substitutes, industrial

cards, and sewing work were shown. Laundering utensils, the proper setting of a table, and invalid trays were often included. The care and feeding of infants was demonstrated by means of a doll dressed as a baby, showing clothing, feeding bottle, and bed.

EXTENSION WORK IN HOME ECONOMICS.

Mothers' classes taught in Spanish were given by Porto Rican teachers of home economics once a week. These classes covered a period of two hours. The use of wheat substitutes and war-time menus was studied. These classes varied in size from 10 to 80 persons. In small classes actual cooking was done; in larger ones, demonstration lectures were given.

Neighborhood evenings were held once a month in the home economics room, at which meetings subjects relating to home and community life as affected by the war were discussed. Men, women, and older students attended these meetings, which usually were crowded. Extension work by the teachers of home economics was carried on in some of the rural districts by means of lectures and demonstrations. Bread substitutes were taught and gardening was encouraged at these meetings.

SEWING.

Sewing classes studied the change produced in the clothing problem by war. Clothing conservation was taught, as well as the purchase of durable clothing and the elimination of unessentials, such as laces, ribbons, dress trimmings, and jewelry. All fourth-year classes made pajamas for the Red Cross.

The change made in the course of study in the past year has facilitated still greater adaptation to war conditions. The practice secured will make it possible to do much work in refugee garments, while the hospital garments will continue to be made as long as money and materials are available.

MANUAL ARTS.

The work in manual arts for the past year has been badly handicapped because of the entrance of more than one-half of the teaching force into the military service of the United States. The other half was left in a restless condition, but, in spite of this fact, the year's work as outlined was completed and many problems bearing upon the construction of articles suitable for use by the Red Cross and the Young Men's Christian Association were worked out. These included knitting needles, food driers, beds, tables, bed supports, checker boards, and folding chairs. The manual arts classes in

every town where this subject was taught made bulletin boards for the posters of the United States Food Commission. All this work was done in addition to the regular repair work, class work, and community work done by the pupils.

In order to fill many vacancies in the manual arts teaching force, caused by war conditions, a summer session was held at the College of Agriculture and Mechanic Arts for high-school graduates who had done exceptional work in this subject and who were especially recommended by the respective supervisors of schools. The results of this summer school were gratifying, though most of the candidates were necessarily young, the average age being 21 years. Enough candidates were obtained to fill all vacancies.

JUNIOR RED CROSS DRIVE.

The commissioner of education, the president of the school board of San Juan, and the supervisor of home economics were designated as the chapter school committee of the Porto Rico chapter of the American National Red Cross for the purpose of organizing and carrying out the Junior Red Cross drive. In every municipality there was appointed a local committee of three members, consisting, as a rule, of the supervisor of schools or the acting principal, the president of the school board, and a teacher, usually the teacher of home economics.

Owing to the fact that the public schools were engaged in one kind of war work or another since the outbreak of the war, the committee delayed organizing the Junior Red Cross membership and financial campaign until the early part of the month of May.

Teachers and children, aided by a generous public, responded loyally and patriotically to the efforts of the chapter school committee and local committees. The results are considered exceptionally good when one bears in mind the poverty prevailing in many parts of Porto Rico, and also the fact that no special effort was made to carry the campaign to rural schools.

In 52 municipalities all the urban school pupils were enrolled as members of the Junior Red Cross, and in 11 municipalities, namely, San Juan, Ponce, Arecibo, Fajardo, Guayama, Gurabo, Hatillo, Juncos, Patillas, Barceloneta, and Camuy, all pupils, both urban and rural, were so enrolled. The total membership at the close of the year was 68,013, and the total amount contributed \$21,501.22.

AMERICAN RED CROSS.

In addition to the activities in behalf of the Junior Red Cross many teachers have aided in the work of the Porto Rico chapter of the American Red Cross wherever it had local organizations.

During the second war-fund drive an effort was made to have all employees of the insular government give one day's pay as a special contribution to this fund. An appeal was sent to supervisors and teachers by the commissioner, urging them to make one more sacrifice in addition to those already made. Of 2,649 teachers in the service at the close of the year, 2,587 made this special contribution.

LIBERTY LOAN CAMPAIGNS.

The schools have taken an active part in the Liberty Loan campaigns for promoting the sale of liberty bonds. They have participated in all the civic parades organized for this purpose, and in a few towns the propaganda for the sale of bonds was directly in the hands of teachers and school boards, who conducted public meetings in which the schools participated. A total of 705 liberty bonds were bought: By the office and supervisory force, 104; by teachers, 522; by schools, 79. Good records for the purchase of liberty bonds were made by the supervisors and teachers of the Fajardo, Ponce, and Yauco Districts.

SCHOOL MEN IN MILITARY SERVICE.

Since the United States entered the World War the department of education and the University of Porto Rico have lost 233 of their best men by their entering the military service. Of these, 10 were supervisors of schools, 12 instructors in the university; 4 high-school principals, 10 high-school teachers, 5 school board members, 18 manual-training teachers, 13 teachers of English, 2 special teachers of agriculture, 49 graded teachers, and 110 rural teachers.

NATIVE INDUSTRIES.

In addition to the courses in home economics and manual training, which have become a regular part of the urban course of study, plain sewing for girl pupils was taught in the urban schools of 27 municipalities and in certain rural schools of 60 other municipalities. While in the greater number of rural schools both boys and girls were required to do garden work, in many there were not enough implements nor sufficient land available to employ both sexes, and in all such cases the girls spent one full period each day in sewing, while the boys were at work in the garden. In very many instances women teachers devoted an hour after the close of the regular daily session to the teaching of sewing, embroidery, and lace work. No additional pay was received for this work.

The teaching of native industries in the schools is a question of momentous importance in connection with the future welfare of the people. This can not, however, be undertaken in a general and sys-

tematic way until such time as the legislature finds it possible to provide special funds for the work. The need of expert supervisors and teachers is especially urgent. This need has been recognized by a number of school boards. Special instructors in hat making, sewing, and embroidery have been employed by some of the boards with good results. But very few of them have funds available for this purpose. An additional preliminary step that must be taken is to increase the available supply of raw materials. In certain sections the hat palm and textile plants are plentiful. In other sections, however, they are not to be had. In a number of towns where plans were made during the year for instruction in hat making, they had to be abandoned owing to the difficulty in securing raw materials. It will therefore be necessary to carry out a systematic campaign for the cultivation of palm and textile plants on a wider scale before a number of native industries can become generalized.

School boards, supervisors, and teachers have been urged to go ahead in this matter independently. The importance of the step is not, however, as yet generally recognized. In but 37 of the municipalities have any efforts been made in this direction. In 38 municipalities absolutely nothing has been done. It is gratifying none the less to report on the results already accomplished in approximately one-half of the districts.

Many of the products of the pupils' industry have found a ready market in the island. In order to command a market in the United States, however, these products will have to be standardized. This department realizes that this is a field for increased attention as soon as the legislature makes the necessary funds available.

SCHOOL LIBRARIES.

Urban school libraries are maintained in 62 municipalities. They report a total of 32,950 volumes, an average of 530 per library. Unfortunately, many of the books which were acquired or donated in years past are not in the least adapted to the needs and interests of school children. Since the department issued an official library guide, however, with the added regulation that all books purchased from school-board funds should be selected from the guide, these libraries are gradually assuming a character and an appearance more in harmony with their purpose. A total of 2,435 new books have been bought for the town libraries during the year at a total cost of \$1,218.55. A considerable number of books have also been donated.

Thirty-four municipalities report the maintenance of rural school libraries. The total number of books is 5,097, an average of 150 books per municipality. Of these, 1,137 have been bought during the year and are of a nature that will meet the needs of rural pupils.

SCHOOL LUNCHES.

The movement to provide poor school children with noonday lunches was initiated some years ago by individual teachers with the cooperation of public-spirited men and women. The movement has grown to encouraging proportions, although it is still wholly supported by private funds. While it has not been possible to devote any public money to this work, the department is in entire sympathy with it, and it has done what it could to encourage and extend it. A law was enacted by the legislature at its last session to appropriate public funds for it. Unfortunately, the scarcity of funds available for school purposes will nullify the favorable action of the legislature for the present, as other needs of the schools of an even more imperative nature will have to be given preference.

Wherever it has thus far been possible to provide noonday lunches the results have been most satisfactory. Supervisors and teachers report a better attendance and a higher grade of individual work. The "comedor escolar" insures the undernourished child at least one fairly well-balanced meal every school day.

In many instances teachers have through various activities been able to pay a large proportion of the cost themselves. In the town of Lares, for instance, the principal of the schools leased the town theater and gave a moving-picture show throughout the year for the exclusive purpose of providing funds for lunches. This accounts for the fact that the Lares teachers were able to feed, on the average, 50 pupils each day at a cost to the community of less than 1 cent per pupil.

DEPARTMENT PUBLICATIONS.

During the biennium the department issued 214 circular letters dealing with administrative matters, and 11 bulletins for the guidance of teachers bearing directly upon the work of the schools.

The Porto Rico School Review, published under the auspices of the department of education and the Porto Rico teachers' association, was issued monthly during the school year and replaces to a large extent the bulletin heretofore issued in pamphlet form. The Review has developed into a standard professional magazine and serves as a forum for discussion and as a medium for informing the teaching force of matters of educational importance.

TEACHERS' MEETINGS AND INSTITUTES.

In view of the relatively large proportion of new teachers who have come into the service during the past few years, due to the increase in the number of schools and also to the fact that many of the more experienced teachers left school work as a result of war conditions, supervisors have everywhere been called upon to take special

measures to meet this situation. This has called for longer and more frequent visits on the part of the supervisors, and everywhere added importance has been given to such factors as teachers' meetings and demonstration classes.

Of teachers' meetings a total of 327 are reported during the year. This does not include the very many grade or group meetings which have been held at stated intervals in practically all districts. Of these 327 meetings, an average of 7 per district, 166 were graded teachers' meetings, 87 were for the special benefit of rural teachers, and 74 were general district meetings.

The following subjects are illustrative of the practical nature of the themes discussed:

- Purpose and value of seat work.
- Types of seat work.
- Teaching of English and Spanish in the primary grades.
- English pronunciation.
- Moral and civic training.
- Securing the cooperation of parents.
- The hour plan.
- Teaching children how to study.
- Socializing the recitation.
- Motivation of school work.

Activities connected with the war received their full share of attention. Food conservation and extension of the food supply, school gardens, the American Red Cross, the Junior Red Cross, Liberty Bond campaigns, and War Savings Stamps were common topics of discussion, and in all the districts special meetings were devoted to these subjects.

Series of practice or demonstration classes have been held in many of the districts for the special benefit of weak or inexperienced teachers. Another practice which has been followed to a much greater extent than in the past has been that of allowing weak teachers a visiting day. In many instances teachers have shown a readiness to undergo the expense and trouble of visiting some of the larger educational centers, away from their respective towns, to observe the work of the more successful teachers and to familiarize themselves with certain experiments that were being conducted in educational lines.

General teachers' institutes were held at Aibonito, Guayama, Bayamon, Humacao, Quebradillas, San German, and Caguas. Other institutes, somewhat more local in character, were held at Fajardo, Manati, and Maricao. At all these meetings representatives from the department assisted the local supervisors. The nature of the meetings was constructive rather than corrective, as has been the practice in the past. Demonstration classes were given, and certain subjects of the course of study received definite attention.

**ACADEMIC AND PROFESSIONAL QUALIFICATIONS OF THE
TEACHING FORCE.**

As an index to the amount and kind of academic and professional qualifications of the teaching force of Porto Rico, the following table is presented, showing the bases of the licenses held by the teachers:

TEACHERS HOLDING THE PRINCIPAL'S LICENSE.

Degree from a college or university.....	25
Four years' normal training.....	244
By examination.....	50

HIGH-SCHOOL TEACHERS.

Degree from a college or university.....	26
Four years' normal training.....	13
Two years' normal training.....	1
Upon basis of experience or special training.....	13

SPECIAL TEACHERS.

Degree from a college or university.....	21
Four years' normal training.....	32
Two years' normal training.....	1
Upon basis of experience or special training.....	37

TEACHERS OF ENGLISH.

Degree from a college or a university.....	44
Four years' normal training.....	45
High-school or academy diploma or previous license.....	18
By examination.....	3

GRADED TEACHERS.

Degree from a college or a university.....	2
Four years' normal training.....	3
Two years' normal training.....	879
By examination.....	783

RURAL TEACHERS.

Two years' normal training.....	0
By examination.....	1,139

Total.....	3,862
------------	-------

SUMMARY.

Teachers holding a degree from a college or a university.....	418
With four years' normal training.....	317

With two years' normal training -----	890
Upon basis of experience or training -----	50
With high-school or academy diploma or previous license -----	18
Entering by examination -----	1,969
Total -----	3,362

PROFESSIONAL READING COURSES.

An organized effort has been made during the past three years to raise the professional standard of the teachers by providing them with a number of the best and latest books on educational questions. As a result, reports received from supervisors all point to the unquestionable improvement which has been brought about in the general attitude and in the efficiency of the teachers. During the year just closed no insular funds have been available for the purchase of professional books. An appeal was, therefore, made to teachers to purchase the books, indicated for the year's reading course, out of their own funds. They responded readily. The books thus purchased will be available for reference during succeeding years, and every teacher will thus have the nucleus of an individual professional library to which, it is hoped, each will add as his means will permit.

The books recommended for the year's reading course were as follows:

1. For rural teachers:
 - Social problems in Porto Rico—*Ficagle*.
 - Jenn Mitchell's School.
2. For urban teachers from the first to the fourth grade:
 - Motivation of School Work—*Wilson and Wilson*.
 - A Schoolmaster of a Great City—*Patri*.
3. For urban teachers from the fifth to the eighth grade:
 - Motivation of School Work—*Wilson and Wilson*.
 - Education for Character—*Sharp*.
4. For high and continuation school teachers:
 - Supervised Study—*Hall-Quest*.
 - Education for Character—*Sharp*.
5. For school supervisors:
 - Teaching Elementary School Subjects—*Rapoor*.

During the year 1916-17 the following books were prescribed: Farhart's Types of Teaching; Bagley's Classroom Management; Thorndike's Principles of Teaching; and Strayer's A Brief Course in the Teaching Process.

A small but constantly growing collection of professional books is now found in the office of every district supervisor. Standard professional magazines, such as Normal Instructor and Primary Plans, the Porto Rico School Review, Primary Education, and the Elementary School Journal have large numbers of subscribers among the teachers.

The readiness of teachers to make pecuniary sacrifices and their willingness to adopt any suggestions tending to their professional improvement is a decidedly encouraging feature.

RATING OF TEACHERS.

At the close of the school year all the teachers in the active service in the schools of the island were classified according to efficiency of service, a modified form of the Boyce score card being used. Classifications range from E, the highest, to P, the lowest. The latter classification results in the cancellation of the teacher's license and his removal from service.

Summary of the classification of teachers.

Classification.	Urban teachers.	Rural teachers.	Total.
E.....	215	31	246
G.....	835	1,077	1,912
F.....	67	414	481
P.....	2	8	10
Total.....	1,119	1,530	2,649

SCHOOL CELEBRATIONS.

The celebration of school holidays in Porto Rico has been found an excellent means of establishing closer relations between parents and school authorities. On these occasions exhibits of work done in the classroom are usually displayed in order to give the parents an idea of what is being accomplished.

Some of the holidays were observed by appropriate exercises held in the afternoon of the previous day. Of the legal holidays, Washington's Birthday, Columbus Day, Thanksgiving Day, Abolition Day, and Memorial Day were duly celebrated. Arbor Day, Lincoln's Birthday, and Mothers' Day, though not legal holidays, were also generally observed.

The passing of the Jones law, the new organic act under which Porto Rico is governed, was celebrated in several districts by appropriate patriotic exercises. The total number of celebrations held in the 41 school districts was 170.

EDUCATIONAL TESTS AND MEASUREMENTS.

During the year 1915-16 the general educational tests given by the department in Spanish, English, arithmetic, and reasoning produced wide interest and resulted in their extension in many districts. Tests were conducted in 50 of the 74 municipalities. Of the 41 supervisors,

all but 9 gave tests in several grades, while a few supervisors held general tests not only to measure progress with like grades in the same municipality but to compare results with standard measurements. In but few districts, however, was attention given to tests in rural schools.

Two supervisors made use of the Studebaker economy practice exercises as the basis for periodic tests in arithmetic, and one supervisor used the Curtis tests for the same purpose. The Ayres measuring scale for ability in spelling was used in many districts, while three supervisors made similar scales for testing the ability of children to spell in Spanish. Although the spelling of English words will necessarily be emphasized throughout the school course, it is believed by several supervisors that, by proper attention to the matter, the spelling of Spanish words can be fixed by the end of the fourth grade. In measuring the ability to write, both the Highland and the Zaner handwriting scales were used.

Tests were held in Spanish, English, writing, physiology, civics, history, arithmetic, memory, and reasoning, but the greatest number was given in arithmetic. Some supervisors emphasized accuracy and others reasoning; all agree that the tests stimulated both teachers and pupils. Most supervisors report that results secured from rural districts were very discouraging.

One supervisor who has carefully prepared and preserved standard work for every subject in every grade reports that "withdrawals are the chief factor in producing retardation." Another supervisor maintains that the entire course of study is too difficult, and that "scarcely any children in any grade are abreast with the work as outlined for the grade."

THE UNIVERSITY OF PORTO RICO.

The University of Porto Rico comprises the Normal Department, the Colleges of Liberal Arts, Law, and Pharmacy, the University High School, and the Practice School, which is attended by elementary school pupils, all located at Rio Piedras; and the College of Agriculture and Mechanic Arts situated at Mayaguez.

RIO PIEDRAS DEPARTMENTS.

Marked improvements have been made during the past year in buildings, grounds, and material equipment. The pharmacy department has been moved into large and well-lighted rooms of the Memorial Building, where it is in close proximity to the physics and chemistry laboratories and fully equipped with the proper laboratory conveniences and necessities. The usefulness of the biology laboratory has been greatly increased.

The library accommodations have been improved, and the library is now under reorganization to conform to the Dewey system. In spite of changes, the university is still badly in need of more and better buildings.

Many students of the university have entered the teaching profession this year by taking special examinations or by securing temporary licenses.

The first steps in a self-survey of the university were taken at the end of the year by securing from each member of the faculty a synopsis of each course offered by him during the current year, and detailed comments and suggestions concerning the local administration of the university. The most immediate problems connected with the development of the university are financial.

None of the plans for improvement and extension, including the development of the college of liberal arts, the organization of a school of education, a school of medicine, and a school of commerce, and the effecting of a scheme of cooperation with universities and colleges of the United States for the preparation of teachers of Spanish and of commercial students entering the field of Latin-American commerce, can be put into effect until the university has more and better buildings and material equipment, and sufficient funds for increasing the faculty. There is great need of legislation to place the university on a stable financial basis by designating permanent and fixed source of revenue for the university and freeing the institution from the uncertainty of relying upon special appropriations voted at each session of the legislature.

COLLEGE OF AGRICULTURE AND MECHANIC ARTS.

The College of Agriculture and Mechanic Arts has had a year of steady progress, in spite of the same interruptions that have been experienced by all educational institutions since the entrance of our country in the war. The requirement for admission has been raised one year, giving a distinctly older and more serious tone to the whole student body; but resulting in a lower total enrollment, 204 in place of 200 last year. The college was again called upon to supply manual training teachers to fill the gaps in the teaching force of the public school system, gave up students who went into the extension work of the United States Experiment Station as agricultural agents, furnished a full quota of candidates for three training camps for officers, and suffered the most serious loss when eight of the faculty resigned in one week, six to go into the training camp, one into the Young Men's Christian Association work, and one to be director of the Insular Experiment Station. All members of the senior and junior classes of sugar chemists were sent out to help in the labora-

tories of the sugar companies, and without exception have done well. In short, there has never been a time when the training given at the college received such recognition and when the demands for its men were so far beyond its power to fill. Naturally, this demand has reacted favorably on the student body, as a very practical demonstration of the monetary value of thorough work.

Of the three forms of activity in which colleges of this character are engaged—instruction, research, and extension—only the first is properly the function of the college as at present organized. The Federal and Insular Experiment Stations in Porto Rico are each distinct organizations to which the functions of research and extension naturally belong. The importance of instruction in agriculture, particularly in a country where lack of other resources makes the land the sole basis of wealth, is so great, while the funds available are so limited, that attention has been directed to this end.

Experimental work has been carried on in testing vegetables under tropical conditions, in raising Belgian hares as a possible cheap meat supply for the tropics, in poultry, which plays such an important part in the food supply of all warm countries, and in forage and cover crops. In March a very successful three days' agricultural congress was held in connection with the United States Experiment Station, the Insular Experiment Station and the Food Commission to arouse the interest in a greater food supply grown in the island.

CERTIFICATES, DIPLOMAS, AND DEGREES GRANTED.

Río Piedras department:	
College of Liberal Arts: B. S. in chemistry.....	1
College of Law: Bachelor of laws.....	13
Normal Department:	
Four-year course diplomas.....	42
Rural teachers' certificates.....	30
High-school diplomas.....	51
Total.....	137
College of Agriculture and Mechanic Arts:	
B. S. in agriculture.....	2
B. S. in civil engineering.....	3
B. S. in mechanical engineering.....	1
B. S. in sugar engineering.....	3
Subcollegiate diploma in agricultural science.....	8
Subcollegiate diploma in polytechnic science.....	12
Total.....	29
Grand total.....	166

EDUCATION IN THE CANAL ZONE.

[Summarized from the report of A. R. Lang, superintendent.]

New concrete school buildings at Ancon, Balboa, Pedro Miguel, Gatun, and Cristobal were completed October 1, 1917, but late arrival of school furniture and quarantine at various parts because of prevalence of whooping cough and measles delayed their opening. The enrollment for both white and colored schools, as also the total number of teachers employed, showed a steady increase over those of the two preceding years. The growth of the system is shown by the following named new positions, authorized for the school year 1917-18:

Supervisor of upper grades, \$2,400 per year (recreated).
 Instructor of apprentices, \$2,100 per year.
 Teachers (two) of science and mathematics, high school, at \$159.50 per month, each.
 Teacher of Spanish and French, \$104.50 per month.
 Director of music, \$175 per month.
 Manual-training teacher, \$159.50 per month.
 Teacher, high school, \$132 per month, effective October 22, 1917.
 Teacher, grade, \$104.50 per month. (Seven; one abolished and one high-school position at \$132 created October 22, 1917.)

Other signs of progress are:

(1) The entrance salary for grade teachers was increased from \$95 to \$104.50 per month, effective at the opening of the school year; high-school teachers from \$120 to \$132; and science and mathematics teachers from \$145 to \$159.50.

(2) The eleventh and twelfth grades were added to the Cristobal High School, and the eighth grade was added to the Pedro Miguel white school.

The usual physical examinations of pupils in the white schools were made during the week beginning October 27, and showed the following results:

Total number of pupils examined.....	1,303
Number found needing treatment.....	679
Percentage of those examined needing treatment.....	52
Number with teeth as only defect.....	341
Number with defects other than those of teeth only.....	338
Defects found.....	790
Defects of vision.....	77
Defects of hearing.....	11
Nasal breathing.....	32
Hypertrophied tonsils.....	167
Pulmonary disease.....	5
Bronchitis.....	3
Chorea or other nervous disorders.....	4
Orthopedic defects.....	3
Malnutrition.....	2
Defective teeth.....	441

Defects found—Continued.

Contagious diseases.....	5
Enlarged cervical glands.....	27
Cardiac disease.....	13
Total number of cases treated.....	164
Number of pupils vaccinated.....	89

Work was carried on during the year in the revision of the courses of study in both white and colored schools, which will be put into effect for the year 1918-19.

Night schools at the Balboa High School were started on February 19, 1918, the following subjects being taught: Shorthand, typewriting, bookkeeping, algebra, geometry, English, and Spanish. Tuition was \$4 per month, and salaries of teachers \$4 per night.

Junior Red Cross work was carried on extensively in the white schools, and a Junior Red Cross Auxiliary was organized in each white school and did good work, raising \$640 to be used for materials. School entertainments and dances were held for the benefit of the Red Cross; the Industrial Arts Schools cooperated with the Red Cross work and food conservation; and the manual training classes made boxes for packing local Red Cross material to be sent abroad. According to the report of the secretary of the Junior Red Cross, \$27,167.50 was invested in Liberty Bonds, War Savings Stamps, and Thrift Stamps.

The Junior Four Minute Men speaking contests were carried on successfully in connection with the work in English. The pupil who made the best speech became a Junior Four Minute Man and was awarded an appropriate certificate. The flag salute, patriotic songs, etc., were used daily. Flags were displayed at each school and in each classroom. Patriotic posters were displayed in every school.

"Lessons in Community and National Life" (prepared by the United States Bureau of Education and used in all grades above the third, including the high school) and thrift and war savings problems were incorporated into the work of the schools in such subjects as arithmetic, reading, history, English, geography, and current events. Examinations in the subject matter covered by Lessons in Community and National Life were given at the midyear and also at the end of the school year. It was the aim to correlate these problems with the different subjects in the schools the nature of which has inspired the pupils to better results.

Circulars have been issued to parents and guardians requesting that they cooperate with the schools in inspiring thrift and patriotism, and to teachers urging the importance of this kind of work.

The High School of Balboa continued its successful career, 89 pupils, including the class of 1917, having been graduated from it. The annual high-school play was given at the different Young Men's Christian Association clubhouses and at Camp Empire.

Manual training and household arts classes were carried on at Cristobal for the Cristobal and Gatun pupils.

SEWING WORK.

The business of providing suitable industrial training in the zone is difficult because of the scattered condition of its population. In order that results on a par with those of the modern industrial schools of the States may obtain, plans are under way for erecting and equipping buildings and providing instructors for each of the two terminal towns. When these are available, every child from the sixth grade on will share in the advantage that will come of having an institution of the most approved type. As the study of the conditions under which the courses of instruction must be developed continues, obstacles must be overcome; and new problems, unusual to teachers who are likely to be drawn to this locality, must be solved.

No better results could be achieved, and to no better use could the cooking department be put, than solving the new native produce question. This would be an ideal locality in which to conduct an agricultural center, with the boys in the fields producing the crops the year around and the girls cooking and studying food preparation from a scientific viewpoint.

Contrary to what might be expected, a big demand has been created for the pieces of furniture that add to the comfort and appearance of the homes, and altogether there seems to be no end to the possibilities of the industrial department. During the year much attention has been given to the organization of the manual training course in a way that would acquaint the students with the working methods of the shops. Satisfactory results also come of requiring them to give some time to the making of articles of equipment for the schools, the salient features being the promotion of responsibility for the welfare of the department, appreciation of expenditures for its upkeep, and the discouraging of selfishness. In this way employment is afforded those students who can not pay for, or who can not decide to make, furniture for themselves. As a result considerable school equipment of superior grade was turned out. Drawings, tracings, and blue prints for the proposed industrial school buildings at Balboa and Cristobal were made. There are other lines of industrial work rich in cultural and practical value to students and the community which should be given consideration.

The steady growth of the apprentice department has been noteworthy, as shown in the following table:

Enrollment according to trades and school grades.

Trades.	4th.	5th.	6th.	7th.	8th.	9th.	10th.	11th.	12th.	Total.
Boilermakers.....		2	1	1		2	1			7
Blacksmiths.....				1						1
Cabinetmakers.....			1			1				2
Coppersmiths.....				1						1
Craftsmen.....					1					1
Electricians.....				1						1
Machinists.....			2	5	3	3	2		2	17
Molders.....			1	1						2
Pipefitters.....					1		1			2

Physical training and athletics were continued in all the white schools. In almost all the white schools monthly fire drills, under the supervision of the Panama Canal Fire Department, were held.

The following table summarizes the comparative educational statistics for the years ending June 30, 1915, 1916, 1917, 1918:

Comparative statistics.

Items.	1915	1916	1917	1918
Number of school buildings.....	15	16	19	17
Buildings erected and converted.....	4	1	3	
Additional rooms constructed (additions to existing buildings).....	2	4	1	1
Number of employees in division.....	65	60	70	81
Number of supervisory force.....	1	1	2	3
Total expenditures (approximate).....	\$109,000	\$70,188.50	\$87,000	\$140,000
Estimated value of school property.....	\$120,000	\$110,000.00	\$100,000	\$550,000
Net enrollment:				
White schools.....	1,146	1,360	1,118	1,794
Colored schools.....	1,430	785	855	1,010
White and colored.....	2,576	2,149	2,373	2,774
Per capita expense of maintenance (approximate), based on net enrollment.....	\$42.31	\$32.66	\$36.60	\$50.83
Total days of attendance.....	283,988.5	258,244.0	295,697.0	350,619.0
White schools.....	157,537.0	183,240.0	200,782.0	239,527.3
Colored schools.....	126,451.5	75,004.0	85,915.0	111,091.5
Average daily attendance.....	1,762.2	1,501.4	1,709.2	1,964.2
White schools.....	1,006.3	1,065.1	1,212.6	1,322.9
Colored schools.....	755.9	436.3	496.6	641.3
Absence of teachers on account of sickness, days.....	217	161	234.5	312.0
Average monthly wages of teachers:				
White.....	\$98.75	\$98.84	\$100.52	\$125.54
Colored.....	\$39.75	\$40.56	\$65.00	\$67.67
Tuition collected.....	\$1,184.00	\$2,502.32	\$3,510.19	\$4,861.61

THE VIRGIN ISLANDS.

[FROM THE REPORT OF THE SCHOOL DIRECTOR FOR THE YEAR ENDING JUNE 30, 1918.]

There are only two classes of schools in the Virgin Islands—the public and those still maintained by the Roman Catholic Church. The public schools comprise those situated in the towns of Charlotte, Amalle, Frederikstød, and Christiansted, as well as the country schools formerly conducted by the Moravian Church, which for a short period were subsidized by the United States Government, but have now been formally transferred and become a part of the

public school system. The former Danish school director continued under our Government until July 1, 1917, when the present director assumed charge.

There are now 19 public schools organized in the Virgin Islands, with 80 teachers and about 2,500 children. There are 18 private schools maintained by the Roman Catholic Church, with 44 teachers and 1,364 children. The average salary received by the public school teachers is \$17.03 per month, having recently been increased from \$13.15. All teachers are natives. The director of schools for the islands states that his work has been greatly handicapped by reason of lack of books and equipment, practically none of which are available. An examination of the outline of the course of study shows the work planned almost entirely from the academic standpoint, industrial and vocational work receiving comparatively little attention. The survey of the actual school system has also shown clearly that to inaugurate a proper system of public education in the conditions of extreme poverty and ignorance generally prevailing, to purchase land, erect necessary buildings, provide furniture and other equipment, and engage teachers of satisfactory capacities, will require not less than \$300,000. Such a system, to be adequate and to effect the sorely needed improvements in the life of the people, must carry education beyond the elementary stages, so that what native talent there is in the people may have an opportunity to develop along agricultural, industrial, and business lines. It is also plainly essential that a normal school be established as early as possible, in order that native teachers may be developed under American instructors.

HAWAII.

By HENRY W. KINNEY, Superintendent.

During the past two years the school population of Hawaii has increased with considerably rapidity, the increase during the school year ending in June, 1917, being 6.9 per cent, while that for the school year ending June, 1918, was 6.4 per cent. During the same two years the pupils attending the public schools of the Territory have increased in number from 30,205 to 34,343.

To meet the needs occasioned by this increase a number of additional teachers have been employed. The total number of teachers in June, 1916, was 804, and in June, 1918, it was 967.

While the number of the teachers obtained from the Territorial Normal School has approximated 50 annually, it has been necessary to secure a greater number of additional teachers from the United States. The department has been fortunate in establishing close relations with the prominent universities and normal schools on the

Pacific coast, and, as a result, nearly all the teachers who have come to Hawaii from the United States during the past two years have been graduates of these institutions. It has been found advantageous to employ this method of securing teachers, as a better class is secured through the conscientious and responsible heads of institutions than could possibly be obtained through other means.

Some teachers are obtained from those who attend the summer school held annually in Honolulu, a four-week course open to those who pass the eighth-grade examination. From those who pass the summer-school examinations are drawn the teachers placed in the small schools of the remote regions, to which better-trained teachers refuse to go, owing to isolation and similar conditions. The department does not feel that this method of certification is satisfactory, owing to the manifest lack of both academic and professional preparation, but, until the normal school furnishes a greater number of graduates, it will hardly be possible to avoid employing this means. It is also hoped that the time is coming when the normal-school course may be made more exacting, but it seems as if the conditions resulting from the war, particularly the scarcity of qualified teachers, may postpone this step.

The department has, nevertheless, for the past two years been able to reduce greatly the percentage of teachers without adequate certification. This is due largely to the fact that the legislature of 1917 so increased the school appropriation as to raise teachers' salaries from 5 to 15 per cent.

The high schools in the Territory have increased quite rapidly, the number of such pupils in June, 1916, being 444 and in June, 1918, 625. The number of high-school teachers during the same period has increased from 32 to 42. The department is working toward establishing absolute uniformity in the high schools under its control, and, with this end in view, uniform textbooks were adopted in June, 1918. During the school year beginning September, 1918, 57 high-school teachers will be employed.

The normal school in Honolulu will be enlarged by the addition of a 12-room training school unit, and the number of teachers employed in the normal school will be 48, as against 32 employed in June, 1918, and 25 in June, 1916.

The most conspicuous feature of the Hawaiian school system is the diversity of nationalities found in the public schools. The summary showing the total is given below:

Enrollment in the Hawaiian schools, by nationalities.

Hawaiian.....	3,216
Part-Hawaiian.....	3,805

Enrollment in Hawaiian schools, by nationalities.

American.....	849
British.....	108
German.....	126
Portuguese.....	5,001
Japanese.....	15,101
Chinese.....	3,305
Porto Rican.....	1,032
Korean.....	409
Spanish.....	489
Russian.....	125
Philippine.....	626
Other foreigners.....	151
Total.....	34,313

In the schools no cognizance is taken of race, and it is surprising, especially to strangers, to note how very little influence the race problem has upon the school system. As a matter of fact, the department maintains that its task is the blending of its heterogeneous population into one harmonious and intelligent body politic.

During the past two years the emphasis placed on vocational training has continued, although it is, owing to war conditions, veering to some extent from the shop to the field and garden. Nearly all the large schools of the Territory now have well-equipped shops in charge of specially trained teachers. The schools had also conducted school and home gardens on a large scale, initiated even before the war began. This was an excellent foundation on which to take up the home production which the war placed upon the shoulders of the school communities. In no place in the Union is self-help, particularly as expressed in the home garden, so important as in Hawaii, which, by this means, is able to reduce greatly the quantity of imports from the mainland. As every ton of home-grown product means the saving of a 2,100-mile transportation from San Francisco, the children of Hawaii have had this matter particularly impressed upon them. There is probably not a school in the Territory which does not possess a garden, and practically all the school children who have attained suitable age have numerous home gardens as well. Thus, 132 schools have home gardens totaling 0,692

The number of school kitchens in which domestic science is taught by specially trained teachers and which serve 2½, 5, and 10 cent lunches to the school children is steadily increasing. While the war has taken away so many of the young men from the force that the instruction in the shops and possibly in agriculture will be seriously impaired, the kitchens will go on as usual. The vocational instructors are obliged at present to do classroom work as well as vocational work, owing mainly to the lack of funds in the vocational

appropriation, but it is the hope of the department that these teachers will soon be able to devote their entire time to strictly vocational work.

In this connection it may not be out of place to mention the fact that the public-school children have taken a very active and very productive interest in the activities occasioned more or less directly by the war. Stamps and liberty bonds have been bought in large quantities by pupils and teachers, and Red Cross units have been organized in practically all the schools having children large enough to furnish assistance of value. A large number of articles needed by the Red Cross have been prepared, and on the whole the war has undoubtedly done much toward fostering the spirit of united Americanism among these children of many races and nationalities.

The increase in school population has made it necessary to add materially to the school plant. While additional grounds have been annexed in a number of places, and while the legislature of 1917 made special appropriations for the enlargement of a number of the principal schools in Honolulu, the securing of additional areas will still be one of the principal problems of the department during the coming biennium.

While the counties remain in control of actual school construction, and the department has only the power of approval or disapproval of plans, this system of dual control has, in the past two years, been administered more efficiently than might be expected, owing to the cooperation which has existed between the various counties and the department. The task of construction has been simplified by the use of standard types of buildings. One of these, a bungalow type, has served well in the past where it was necessary to provide a serviceable building at the minimum of expense, but the department hopes that during the coming biennium it will be possible to abandon or at least improve this type. On the whole, the school buildings constructed during the past two years have been adequate and up to date as far as lighting and space, ventilation, seating capacity, etc., are concerned, but these buildings have been made extremely plain, owing to the lack of money, and it is to be hoped that the coming legislature will provide funds to build structures which will be more of a source of pride to the community and of inspiration for the pupils.

It should be added that the comparative lack of funds for school construction is due mainly to the tremendous increase in the cost of construction. The price of materials has advanced enormously, as it has elsewhere, but, in addition to this, Hawaii has had to contend with the tremendous advance in cost of ocean transportation, which is a serious matter, as practically all the material, such as lumber, hardware, cement, etc., has to be transported over 2,000 miles.

It is fortunate that it has been possible to improve the conditions in many of the country schools by the construction of dwellings for teachers, so that now practically every school in the Territory, with the exception of those located in Honolulu and Hilo, has on its grounds cottages for the teachers. This has made it possible to secure in many of the country schools a class of teachers superior to that employed when no adequate lodging facilities existed. In some of the counties it has been possible to have furniture for these cottages manufactured in the school carpenter shops, and it is hoped that during the next biennium all the teachers' cottages will be provided, at least to a very great extent, with serviceable furniture.

The public schools are notoriously lacking in toilet facilities, and the providing of such will be one of the problems of the next biennium.

The school for the care of defectives has increased in size from 1 teacher and 13 pupils in June, 1916, to 6 teachers and probably about 50 pupils in September, 1918. The department is now looking for a site in which to establish an institution permanently, and there is available an appropriation of \$35,000 for teachers and buildings for the present biennium. While at present deaf, dumb, blind, and mentally defective children are taught in the same institution, it will undoubtedly be advisable, when the number of pupils justifies the step, to divide the present institution into two separate units—one for the mentally defective and another for those having other defects. At present only pupils are taught who can come to school alone or who can be reached by means of an automobile provided for their transportation. The institution should, however, be provided with facilities for boarding children from the other islands.

A school for tubercular children exists in Honolulu, and another may be established on one of the other islands in the near future.

Several ungraded rooms for the instruction of backward children have been provided in Honolulu, and during the coming term an experiment will be made whereby a coach will be provided to instruct children who are backward in one or two subjects in the afternoons and on Saturdays. If this plan is found successful, it will be more generally used.

Medical inspection in the schools has been extended. This work is under the control of the Territorial board of health.

By means of a fund raised by private subscription, it has been possible to feed a number of poorly nourished children, and in some schools careful records have been made of weights and measurements.

A new primer, particularly adapted to the needs of the pupils of this Territory, has been compiled by a committee of teachers and is now in the process of publication by the printing class of the normal school. These books are to be issued to the schools as sup-

plementary readers until it has been determined whether they are altogether suitable for general adoption.

A special examination of the German textbooks used in the high schools has been made, and several which were considered as being of a questionable character have been eliminated.

All teachers in the public-school service have been required to sign the following pledge:

The principal function of the public schools of the Territory of Hawaii is to produce loyal American citizens.

Good American citizenship is more important than scholarship.

The Department expects all its teachers to express themselves positively in teaching loyal Americanism.

Will you do this?

Answer this question "Yes" or "No."

Answer -----

Signature -----

The attendance in the public schools continues to be extraordinarily good, as the following record will show:

	Per cent.
June, 1916-----	93.4
June, 1917-----	93.8
June, 1918-----	93.8

The wonderfully fine climate of the Hawaiian Islands is, to a very great extent, responsible for this condition.

The outlook of the school year beginning September 1, 1918, is rather discouraging, owing to several conditions which have arisen on account of the war. A number of the male teachers have entered the Army. This deprives the department of many of its best young principals, and will materially hamper the work in its carpenter shops and along agricultural lines. Thus it will be necessary to have vocational instructors who will visit one school one day and another the next, whereas, in the past, it has been possible to have one instructor for each large school. A number of the young women in the service have married officers of the Regular Army garrisons in Hawaii, and have left for the mainland with the exodus of regular troops. A number of married women teaching in the schools in the outside districts have left for Honolulu, owing to the fact that their husbands have been drafted in the regiments consisting of local men, which have all been stationed on the Island of Oahu. As a consequence, the number of teachers leaving the service has been unusually large, and the difficulty of securing others from the United States to take their places has been greater than usual. A further difficulty has arisen from the fact that a number of the steamers plying between San Francisco and the islands have been withdrawn from the service, and teachers wishing to come to the islands have found it very difficult to secure transportation. Despite these ob-

studies the department expects to bring about 150 teachers from the United States, to which number should be added 56 graduates of the Honolulu Normal School, who will also enter the service this year.

THE PHILIPPINE PUBLIC-SCHOOL SYSTEM.

By W. W. MARQUARDT, Director of Education.

ORGANIZATION OF THE BUREAU OF EDUCATION.

During the school years 1916-17 and 1917-18 no important change took place in the organization of the public-school system. The system is a highly centralized one, the director having charge of all public schools in the islands. In certain matters of policy his action is subject to the approval of the secretary of public instruction. Besides the director, there is an assistant director, a second assistant director, a general office force, and a field force.

The work of the general office is in charge of the chiefs of the following divisions: Academic, accounting, industrial, property, and records.

In the field the division superintendent of schools is directly responsible to the director of education. He supervises the schools of a Province, and under him are usually a supervisor of academic instruction, one or more supervisors of industrial instruction, a high-school principal, and several supervising teachers.

The division is divided into supervising districts, each in charge of a supervising teacher who has control of primary and intermediate schools within his district. There are 48 divisions and more than 300 supervising districts.

FACTORS OF SUCCESS.

Whatever success has been achieved in the Philippine public-school system has been due largely to the fact that a centralized system has been established under the control of professional educators. The future development and progress of the public schools will depend upon whether or not this policy is continued.

SCHOOLS AND PUPILS.

There was no increase in the number of primary schools and a very slight increase in the number of secondary schools, whereas the number of intermediate schools grew rapidly because intermediate schools are supported almost entirely by tuition fees. If inter-

mediate schools had depended upon governmental revenues, no increase could have been made.

Increase in school attendance.

Attendance.	Primary.	Interme- diate	Second- ary.	Total.
Schools:				
1917-18.....	1,276	423	48	4,747
1916-17.....	1,288	368	46	4,702
Annual enrollment:				
1917-18.....	592,563	64,306	14,529	671,398
1916-17.....	607,682	56,881	11,432	675,995
Average monthly enrollment:				
1917-18.....	49,386	5,362	1,211	54,959
1916-17.....	50,642	4,740	952	56,334
Average daily attendance:				
1917-18.....	455,754	53,252	12,391	521,397
1916-17.....	457,383	47,230	9,630	514,243
Percentage of attendance:				
1917-18 per cent.....	91	91	96	92
1916-17 per cent.....	90	94	96	91

The annual enrollment for 1917-18 was a little less than for 1916-17; the average monthly enrollment, slightly larger; the average daily attendance, 7,114 greater; and the percentage of attendance, larger. Although the percentage of attendance increased, the fact that 24 per cent of the pupils dropped out of school during 1916-17 can not be overlooked. In other words, only 76 per cent of the pupils enrolled during the year were eligible for promotion at the close of the year, in March. During the past five years there has been an increase in the percentage of pupils held in the schools throughout the year, but during the last two years the increase has been slight. Taking into consideration the fact that there is no compulsory attendance law in the Philippines, these data are not discouraging. It is unquestionably true that the public schools have cultivated a desire for education, as is evidenced by the demand for schools and the increased regularity of attendance.

One encouraging feature of attendance figures is that the proportion of girls to boys in the public schools, especially in the higher grades, is increasing. The oriental attitude toward education of women is being gradually overcome, and at present nearly 40 per cent of the total number of pupils in school are girls. The greatest difficulty has been experienced in keeping girls in school after they finish the primary grades and even until they finish the primary grades. Statistics show, however, that the proportion of girls in higher grades is gradually increasing. Comparison of figures of attendance of boys and girls in intermediate grades for the school years 1910-11 and 1916-17 shows that the increase in attendance of boys was 82 per cent, while that of girls was 222 per cent. In the high schools the figures for boys was 250 per cent, and for girls 267 per cent. These data indicate that an increasing number of girls are

no longer content with a primary education. With the introduction of the new secondary course in housekeeping and household arts, it is believed that a proportionate increase in the number of girls in the high schools will take place.

Extension of school facilities among natives has gone on rapidly. The Philippine Legislature was liberal in the appropriation of insular funds for this purpose. Consequently, the number of schools for natives and the attendance on them increased greatly. Special attention was given to adapting the instruction to the varying needs of these people. Agricultural training was emphasized in practically all new schools opened for them.

At present less than one-half of the school population of the Philippine Islands enjoy educational advantages, and no adequate remedy for this deplorable condition is possible without making provision for increased sources of school revenue. For several years the director of education has tried to impress upon the Philippine Legislature the great need for legislation which would provide increased school revenue. Although it is believed that such legislation would have the support of the Filipino people, and although most of the legislators proclaim their support of the public schools, no remedial legislation has yet been secured. During the 1916-17 and the 1917-18 session of the legislature the director of education presented certain bills and conducted press campaigns in an endeavor to arouse public opinion to support them. The bills proposed were permissive and not mandatory, and were designed to give provincial and municipal governments discretion as to whether they should levy increased taxation in the form of an additional rate upon land values or of an increase in poll tax, or both. Nothing, however, was accomplished. In view of the present prosperous condition of the Philippine Islands, there is no reason why legislation should not be enacted to provide school funds sufficient greatly to extend the system of primary schools.

Since the above words were written, they have been fulfilled to a remarkable degree. In February, 1919, 30,000,000 pesos (\$15,000,000) was appropriated by the Philippine Legislature to extend free education to all the children in the islands.

- Of the effects of this, Acting Gov. Gen. Yeater says, in his report:

This act is of prime importance, not only because it provides funds for a term of years sufficient to extend a primary education of seven grades to all the children of school age, but also because it enables the [Philippine] bureau of education to prepare and carry into execution a complete and systematic development of the existing excellent educational plan, which lacked only extension over the entire field. Furthermore it is a means of incalculable value for the welfare of the Filipino people, since it will banish illiteracy, establish permanently English as the common language of the land, afford a

firm foundation for democratic institutions, and insure order and stability to the insular government.

The adoption of this thoroughly American educational measure will tend greatly to lift the moral responsibility incumbent on the United States to secure a firm and orderly government, and aside from the differences of opinion which may have existed among American statesmen in the past it has been advocated by all Americans from the beginning of the occupation that universal free education of the masses should be an essential characteristic of our national policy in the Philippines. Inasmuch as when Congress considered paragraph 2, the acts of July 1, 19, and of August 29, 1910, much discussion was had about the political capacity of the Philippines, I feel that I discharge a duty of conscience to call your attention to the fact that this enlightened measure was passed by the legislative department of the government, which, as you know, is composed entirely of Filipinos. By this law of universal free education the all-Philippine Legislature in the last two years has provided for doubling the quantity of the educational work effected in almost two decades of previous American occupation. Under the financial support previously given, it was necessary to turn away from the doors of the schoolhouse one-half of all the children of the islands. In five years all the children of the land will receive educational advantages. Besides this, the salaries of all municipal teachers will be increased 30 per cent.

In addition, I direct attention to the fact that at the session of 1917-18 two normal schools were established, and two more were established at the session just adjourned, all to be located by the secretary of public instruction, making, with two already existing, six such schools; also, four agricultural schools were established in the session of 1917-18, and three more this year, making 17 in all. The college of agriculture has just had its appropriation largely increased, and an experiment station has been established in connection with it. The appropriation of this year for the university far exceeds any former appropriation. In addition to all this, the appropriation to the bureau of education for this current calendar year exceeds by 3,000,000 pesos any former appropriation. Furthermore, legislative appropriation was made for pensioning 150 young men and women to be trained as specialists in the colleges of America and elsewhere, and they are expected to sail in August next.

The heroic and unselfish work of American teachers, many of whom lost life or health, deserves and should receive the very highest praise, but it would be particularly unjust and unfair for me as head of the department of public instruction not to recognize and make known the work of Filipinos in this regard. Of the present teaching force of over 14,000, less than 3 per cent are Americans. The number of American teachers is gradually growing less as Filipino teachers are trained to take the important positions which they hold.

PHYSICAL EQUIPMENT OF THE PUBLIC SCHOOLS.

The past two years marked great improvement in the equipment of public schools, especially in regard to school furniture. There was also an increase in the number of school sites and school buildings.

The number of school sites for 1916 was 2,623, and for 1918, 2,824. Considerably more than one-half of these sites are first class, according to the classification below.

A. FIRST-CLASS SITES.

1. A minimum area of one-half hectare for every 200 pupils of the annual enrollment or fraction thereof up to 2 hectares for 800 pupils or more is required.
2. The site must be well located and easily accessible.
3. The site must be well drained and sanitary.
4. The topography must be such that a satisfactory athletic field can be laid out.
5. The soil must be suitable for gardening.

B. SECOND-CLASS SITES.

1. A minimum of one-fourth hectare for every 200 pupils of the annual enrollment or fraction thereof up to 1 hectare for 800 pupils or more is required.
2. An insanitary site or one entirely unfit for gardening and athletics should not be considered second class.

C. THIRD-CLASS SITES.

1. All other sites come under this head.

Conditions brought about by the World War have greatly increased the cost of construction of all types of buildings, especially of the standard reinforced concrete structure, the type of permanent building commonly erected for school purposes. Construction of this type of building has continued, however, because relief from high costs of materials can scarcely be expected for some years, and the additional prosperity tends to lessen the burden of increased cost of construction. In 1917, 840 buildings, 448 of which were of reinforced concrete, were classed as permanent, while in 1916 only 757 were so classified.

The greatest advance in physical conditions during the last two years took place in the equipment of schools with suitable school desks and other furniture. At the close of the school year 1917-18 there were comparatively few Provinces in which any large proportion of pupils were without desks. In the campaign to provide each pupil with a desk of approved type, the provincial trade schools and school shops rendered valuable service and in addition constructed teachers' tables, bookcases, and other school furniture.

TRAINING AND WELFARE OF TEACHERS.

Facilities for training teachers both before and after they enter the teaching service were materially increased during the past two years. Attendance in the higher classes of the Philippine Normal School greatly increased, and the total number of graduates from the institution for the last three years is greater than the total number of graduates for all preceding years.

The Philippine School of Arts and Trades continued to turn out teachers of woodworking and mechanical drawing, and the Central

Luzon Agricultural School sent out a large number of teachers to agricultural, farm, and settlement-farm schools. These teachers were scattered throughout the archipelago, but nearly 500 of them went to the Department of Mindanao and Sulu, where many new settlement-farm schools have been opened. This body of teachers represented practically every Province in the Philippine Islands; and their harmonious cooperation is a significant development in education and in the problem of the final unification and nationalization of the people of these islands.

At the beginning of the school year 1916-17 a four-year normal course was organized in five large provincial high schools. At the same time the course of study in the Philippine Normal School was revised so that only students who had completed the first year of the regular high-school course were eligible for entrance. The Philippine Normal School now gives a special one-year course for supervising teachers and principals in addition to its courses in academic, industrial, domestic science, and physical education. In 1917 a two-year normal course was outlined and put into effect in two or three high schools where the complete secondary course was not offered.

The legislature in 1917 appropriated \$150,000 for the establishment of two new normal schools, one in northern Luzon and one in the Visayas. Large sites for these schools have been secured and construction is expected to begin soon.

The college of education of the University of the Philippines now has a larger attendance than ever and is supplying teachers for secondary work. It is evident, however, that this institution can do little toward supplying enough secondary teachers when the average attendance of secondary students is more than 12,000 and when the yearly increase is so great that the attendance almost doubles every three years. At present, the problem of securing suitable secondary teachers is acute. Due to the war it is impossible and undesirable to get young men from the United States; and while a certain number of women teachers have been secured, not enough are now (August, 1918) available properly to supply the teaching force for the secondary schools.

A rather complete system for the training of teachers in service has been developed, because a large proportion of teachers have had little or no actual training in normals or other schools for the preparation of teachers. During each of the school years 1916-17 and 1917-18 about 800 selected teachers from all divisions attended for a five-weeks' period the teachers' vacation assembly in Manila, where primary and intermediate methods and the latest developments in industrial work were emphasized. Upon returning to their divisions the teachers who attended the assembly in Manila became instructors

for four weeks in division normal institutes for division teachers. The assembly in Manila, and the division institutes which followed, were of the utmost importance in the improvement of the character of academic and industrial instruction. A professional reading course for all intermediate teachers has been outlined for the present school year.

Other agencies used for improving the quality of teachers are: Visiting days, which have become a feature of school work in practically all divisions, and teachers' meetings of various kinds.

The teachers' vacation assembly, held in Baguio during April and May of each year and attended by American and Filipino teachers and supervisory officers, is also an important factor in improving school work. Conferences lasting a week each were held (1) for teachers and principals of intermediate and high schools, (2) for supervising teachers, and (3) for industrial teachers. Following these conferences was the convention of division superintendents.

Classes for Filipino supervising teachers were also held in Baguio. In 1918 for the first time model classes were conducted in connection with these classes. Model classes henceforth will be the most important feature of the teachers' vacation assembly in Manila and of the division institutes.

A determined effort has been made to increase salaries of teachers of all grades. This has been merely a matter of justice, since the cost of living has increased greatly. The salary increases which the director was able to give teachers on the insular pay roll and the increases which division superintendents were able to give municipal teachers are not considered sufficient compensation for the great majority of teachers in the service.

During the past two years the matter of raising salaries of municipal teachers was taken up with division superintendents with the idea of making the minimum salary \$10 per month and with the intention of increasing this to \$12.50 a month at the earliest possible date. A \$10 minimum salary has been fixed in nearly all divisions and the legislature will be requested to appropriate funds to make a \$12.50 minimum salary effective. The average salary of municipal teachers in March, 1916, was \$11.44, and in March, 1917, it was \$11.99. In January, 1918, the average was about \$18.50. Returns for March, 1918, show the following in regard to salaries of municipal teachers:

Percentages of teachers receiving various monthly salaries:

	Per cent.
Less than \$10.00	12
\$10.00 to \$12.49	51
\$12.50 to \$14.99	14
\$15.00 to \$17.49	9
\$17.50 to \$19.99	4
\$20.00 to \$22.49	5

- All regular teachers whether municipal or insular receive salaries for 12 months a year. The average salary of insular teachers has been increased from a little more than \$27.50, in 1916, to something more than \$30 per month at the present time. At the convention of division superintendents in May, 1918, the following salary schedule was recommended for municipal teachers:

Minimum salary.....	\$12.50
30 per cent of teachers.....	\$12.50 to \$14.00
30 per cent of teachers.....	\$15.00 to \$17.49
15 per cent of teachers.....	\$17.50 to \$19.99
15 per cent of teachers.....	\$20.00 to \$22.49
5 per cent of teachers.....	\$22.50 to \$24.00
5 per cent of teachers.....	\$25.00 or more.

While this schedule is not ideal, it sets an aim much in advance of that which can be attained with sources of school revenue as they now are.

TEACHERS AND THEIR WORK.

The number of teachers on duty in March of each of the last three years is shown below:

Teachers.	March—		
	1916	1917	1918
Americans.....	506	477	411
Insular.....	1,279	1,391	1,389
Municipal.....	9,138	10,336	11,484
Apprentice.....	40	99	2
Total.....	10,963	12,303	13,286

The number of American teachers has decreased nearly 100, the number of insular teachers has increased 110, and the number of municipal teachers has increased at the rate of more than 1,000 a year.

The following table shows the number of teachers assigned to various duties in March of each of the last three years:

Teachers.	March—		
	1916	1917	1918
Primary.....	1,435	9,555	10,447
Intermediate.....	1,104	1,339	1,388
Secondary.....	231	268	343
Industrial instruction and supervision.....	810	591	213
General supervision.....	303	320	340

Only two-tenths of 1 per cent of American teachers on duty in 1917 were engaged in primary work, and they were teaching in

schools attended by American children in Manila and at Army posts. Five per cent of intermediate teachers in 1917 were Americans, a decrease of more than 4 per cent since 1916. A little more than three-fourths of the teachers engaged in secondary work were Americans, and 35 per cent of the teachers doing supervisory work were Americans. The time is rapidly coming when Americans will be employed only in high schools, as provincial supervisors, and as division superintendents. Very few supervising teachers now are Americans, and all supervising teachers will be Filipinos in the near future except in a very limited number of cases.

COURSES OF STUDY.

An important change in the courses of study was the introduction of new courses in secondary schools. The primary course of study has remained practically unchanged. Few changes were made in intermediate courses, where, however, some interesting developments as regards distribution of pupils among the courses took place. The enrollment in intermediate grades by courses for March of the last three years is shown below:

Enrollment.	March—		
	1916	1917	1918
General.....	23,129	30,399	35,999
Teaching.....	7,412	3,436	1,861
Trades.....	3,582	3,510	3,000
Farming.....	1,380	1,862	1,721
Housekeeping and household arts.....	5,917	7,585	9,449

These figures show that the intermediate teaching course is dead. Practically no pupils were enrolled in this course at the beginning of the school year 1918-19. Teachers of higher attainments than the completion of an intermediate course are now available in most provinces. The table shows a large increase in the number of girls enrolling in housekeeping and household arts and a small increase in enrollment of boys in the farming course. A greater increase is expected in the farming course.

In 1918 new secondary courses were outlined. The general course and the four-year normal course were revised. Courses in housekeeping and household arts, in commerce, and in agriculture were outlined for the first time. It is not expected that these new courses will be used in all provincial high schools, but they will be given in several of the larger schools where the number of pupils and the equipment make a diversification in courses feasible.

In addition to the courses offered in provincial high schools, there are six insular schools—the Philippine Normal School, the Philip-

pine School of Arts and Trades, the Philippine School of Commerce, the Philippine Nautical School, the School for the Deaf and the Blind, and the Central Luzon Agricultural School—which offer special courses. The work of the Philippine Normal School has already been mentioned, as has also the fact that the Philippine School of Arts and Trades and the Central Luzon Agricultural School give courses of training for industrial and agricultural teachers. The Philippine School of Arts and Trades also gives courses in woodworking, ironworking, electrical wiring, plumbing, automobile operation, preparatory engineering, and surveying. The Philippine School of Commerce gives courses in bookkeeping, stenography, typewriting, and commerce. The Philippine Nautical School gives a two-year course of training to fit young men to become officers on inter-island vessels and trans-Pacific steamers. The Central Luzon Agricultural School offers, in addition to its teaching course, a course in farm management and one in the operation of steam and gas engines.

PHYSICAL EDUCATION AND MEDICAL AND DENTAL INSPECTION.

The war has directed attention to the necessity of conserving human life and of increasing efficiency. For years practically all students in Philippine public schools have engaged in some form of physical exercise, the effects of which upon the physical development of the Filipino people are distinctly apparent. During 1917-18 military training was prescribed for all boys in high schools and physical education was given a more definite place in all secondary courses of study. A complete course in physical education for primary, intermediate, and secondary grades is being prepared. When this is published, instruction will be more systematic and uniform.

Medical and dental inspection of pupils is in the hands of the Philippine Health Service, which has done valuable work along this line. It did not give to these matters all the attention needed, however, because of lack of sufficient personnel. Medical inspection has been quite general, but dental inspection has been limited to a few places. During the past year a letter was addressed to division superintendents requesting them to take up with provincial boards the matter of providing more adequate medical and dental inspection in the public schools and of securing additional nurses for public-school service. As a result increased attention has been given these matters, but conditions are yet far from satisfactory, and will remain so until there are several provincial nurses in each division—at least one municipal nurse in each large municipality—and an adequate corps of physicians to examine pupils for defects and diseases.

WAR ACTIVITIES OF THE BUREAU OF EDUCATION.

The public schools entered the food-production campaign with enthusiasm, and as a consequence the cultivated area of school and home gardens and the production of food doubled. Thus the Philippine Islands helped to conserve food for the allied forces, and in addition many Filipinos enjoyed a more varied diet.

Red Cross work was done in the schools in 1917, but this work is now being undertaken on a larger scale. In the public schools bandages for wounded soldiers and clothing for French and Belgian refugee children are being made in large numbers. A Red Cross membership campaign just ended has resulted in the enrollment of more than 12,000 teachers as senior members of the Red Cross Society, and more than 200,000 pupils as junior members. During the teachers' vacation assembly in Baguio a Red Cross drive on May 7, 1918, resulted in raising \$2,500.

American and Filipino teachers and other employees have subscribed liberally for Liberty Loan bonds. Employees of the bureau of education purchased more than \$60,000 worth of Liberty Loan bonds of the third issue, in addition to their subscriptions to the first and second issues.

ACADEMIC INSTRUCTION.

A great improvement in academic instruction took place during 1916-17 and 1917-18. This was largely a result of better facilities for training teachers and closer and more effective supervision. The appointment of a larger number of academic supervisors helped to make supervision much more satisfactory. However, much variation in efficiency of instruction still exists.

In academic instruction increased efficiency—the main factor in the promotion of pupils—was shown by the average increase of 6 per cent in promotions in all grades for 1916-17 over 1915-16. As this increase was not due to any lowering of standards, it was significant.

INDUSTRIAL INSTRUCTION.

Industrial instruction occupies an important place in the courses of study. About 17 per cent of the total time in primary grades and 18 per cent of the total time in the general intermediate course is devoted to this form of instruction. In special intermediate courses and in special types of primary schools about half of the time is devoted to industrial work. The following data give an idea of the value of the commercial output of the public schools for the school year 1917-18: Embroideries, \$12,500; laces, \$9,000; crochet, \$4,500;

sewing, \$28,000; cooking, \$3,500; basketry, \$33,000; hats, \$1,500; products of loom weaving, \$3,500; bamboo-rattan furniture, \$3,000. A large number of other articles were made in small quantities.

The value of the gross output of trade schools during the last three years follows: For 1915, \$61,418.81; for 1916, \$79,132.04; for 1917, \$106,485.12. These figures include cost of material, and therefore do not give a definite idea of the total value of work done by pupils.

Due to war conditions the total value of embroideries exported from the Philippines increased from \$162,456 in 1914 to \$1,561,214.50 for the fiscal year July 1, 1916 to June 30, 1917. A part of this increase was undoubtedly made possible by instruction given in the public schools.

War conditions have not been favorable for the production of all commercial articles in the public schools, however. The great increase in trans-Pacific freight rates has made it unprofitable to export articles the value of which is not relatively great as compared with weight and bulk. Excessive cost of transportation has thus made it necessary to abandon the making of larger and more bulky articles.

The bureau of education, through traveling industrial teachers, has fostered household centers, the members of which engaged in the making of embroidery, lace, and other articles of handicraft. The bureau of education gave up the supervision of these centers as soon as they were developed to a point where they could deal directly with business houses.

During the last year the value of school production of articles of handicraft was \$86,270 and the value of production of household centers was \$11,782. Articles to the value of \$92,200 were sold through the general sales department of the bureau of education, and local sales amounted to \$5,852.

AGRICULTURAL INSTRUCTION.

Facilities for agricultural instruction were developed and extended. The number of agricultural, farm, and settlement farm schools increased from 79 for the year 1915-16 to 138 for 1917-18. Of the increase, 9 were agricultural schools; 12, farm schools; and 117, settlement farm schools. During the same period enrollment in these schools nearly doubled, the cultivated area doubled, and the total value of production much more than doubled, having been more than \$45,000 for 1917-18.

Agricultural clubs for boys and girls were organized in 1916-17. Club projects now include gardening, cooking, chicken and hog raising, and fruit growing. At the end of the year 1916-17 club mem-

bers owned 31,538 chickens and 2,247 hogs. During 1917-18 the number of clubs increased to 1,136 and at the end of the year the number of chickens and hogs owned was 58,458 and 2,744, respectively.

An organization pamphlet and 120 lesson leaflets are now being distributed to members, and these help to direct the work and make it more effective. The work of these clubs has an important bearing upon the educational and economic development of the country. This is an agricultural country, and everything that tends to increase agricultural production brings nearer the time when all, instead of one-half, of Filipino children may enjoy educational privileges.

School and home gardens have done much to provide a varied diet and to improve living conditions. The following table shows the number of school and home gardens for the last three school years:

School and home gardens.

Gardens.	1915-16	1916-17	1917-18
School gardens.....	3,515	3,960	4,023
Home gardens.....	48,132	54,655	103,668

Garden days, 1,272 of which were held in 1917-18, aroused interest in home gardening. At these celebrations pupils and farmers not only exhibited garden products, but exhibited domestic animals as well. The bureaus of agriculture, forestry, health, and constabulary cooperated with the bureau of education in furnishing exhibits for some of the garden days. During each of the last three years approximately 100,000 shade and fruit trees were distributed to the public through public-school nurseries.

SCHOOL LIBRARIES.

In 1915 a movement was started for the establishment and development of better school libraries. The table below shows the excellent progress made:

School libraries.

	1915	1916	1917
Number of school libraries.....	329	751	1,084
Number of books acquired.....	8,888	21,020	42,874
Number of outsiders using school libraries.....	1,590	2,781	10,385

The increase in the number of outsiders using the libraries was perhaps more important than the large increase in the number of libraries and the number of books acquired. The school library prob-

lem is far from being solved when the library is established and filled with suitable books. The reading habit among pupils and outsiders must be formed. Proper use of libraries is now being emphasized in public-school work. A large number of outsiders using school libraries were once pupils in the public schools, where they undoubtedly cultivated the desire for reading.

An important step toward inculcating the reading habit was taken in 1917 when the bureau of education started the distribution twice a month of 40,000 copies of a small four-page publication known as "The Philippine News Review," which contains current events of the Philippines and of the world. In many localities this was practically the only available source of important news. The number of copies distributed was increased to 60,000 in 1918.

All secondary and a large majority of intermediate schools now have libraries. The establishment of libraries in larger primary schools is going forward rapidly. These libraries furnish interesting reading for pupils and provide professional magazines for teachers.

The following parts of Bulletin No. 44, Libraries for Philippine Public Schools, were issued in mimeographed form in 1916, 1917, and 1918: Books and Pictures for Primary Grades, Books and Pictures for Intermediate Grades, Supplementary List of Books for Primary and Intermediate Grades, Supplementary List of Books for Intermediate Grades, Supplementary Reading in Geography, Books and Pictures for Secondary Schools.

A five-weeks course in library training was offered in 1917 and 1918 at the teachers' vacation assembly in Manila, and a similar course was given at normal institutes. The new one-year course of study at the Philippine Normal School for supervising teachers and principals gives training in school library management. Division superintendents have been requested to make plans to provide each school with a teacher-librarian.

THE INFLUENCE OF THE PHILIPPINE PUBLIC-SCHOOL SYSTEM IN THE FAR EAST.

During the years 1916-17 and 1917-18 the public schools were visited by a large number of delegations from China, who studied the school system thoroughly. A commission from Formosa and a number of visitors from Japan showed much interest in Philippine public schools. Constant requests were received for publications from such countries as China, Siam, India, Egypt, Burma, Hawaii, Japan, Chosen, French Indo-China, Ceylon, Cuba, Porto Rico, Hayti, Australia, Straits Settlements, Federated Malay States, Papua, Java, Sumatra, Formosa, Newfoundland, Chile, New Zealand, and Fiji.

During this period Filipino teachers began to render service in foreign countries. Two industrial teachers were sent to Quana to

undertake the development of industrial instruction there along the same lines followed in the Philippines. A Filipino teacher of industrial work, who was furnished the government of the Federated Malay States, achieved marked success in the Malay Training College for Teachers at Malacca. Two Filipino teachers were employed as instructors in English in the mission schools of Penang.

FINANCIAL SUPPORT OF THE PUBLIC SCHOOLS.

The following table gives insular, provincial, and municipal expenditures for education from 1914 to 1916. No later data are available.

Expenditures for education.

Year.	Insular.		Provincial.	Municipal.	Total.
	Instruction and administration.	Public works.			
1914.....	\$2,000,027.99	\$251,830.01	\$230,260.15	\$1,151,652.17	\$3,632,769.31
1915.....	2,087,153.27	363,591.81	221,583.48	1,082,406.85	3,754,635.41
1916.....	2,151,853.55	191,098.44	231,921.58	1,197,393.90	3,773,266.47

During these years insular, provincial, and municipal expenditures varied a little. The total of insular appropriations was between two and two and one-half million dollars; provincial expenditures amounted to about two hundred and twenty-five thousand dollars; and municipal expenditures to more than one million dollars.

Taking into consideration the increase in prices of practically all commodities, it is evident that appropriations have not been sufficient to provide for extension of public education. In fact, the number of primary schools has decreased slightly.

When the bureau of education was organized, the insular government undertook a large share of the support of public schools. At that time, however, it was thought that provincial and municipal governments would gradually assume larger responsibilities for the maintenance and support of schools. Such has not been the case, however, and provincial and municipal expenditures for public schools show relatively small increases.

For several years permissive legislation, which would permit provinces and municipalities to raise increased school revenues by taxation, has been proposed by the bureau of education to the Philippine Legislature, but favorable action has not been secured. Such action is necessary if there is to be any further extension of the public school system. If secondary and agricultural education in the provinces is to be placed upon a firm basis, a fixed provincial school fund is necessary, and it should be not less than 10 per cent of the total provincial revenue.

WHAT THE BUREAU OF EDUCATION STANDS FOR.

The bureau of education advocates:

1. For every boy and girl a minimum educational opportunity, consisting of free attendance upon at least the four grades of the primary course.
2. For every primary graduate the opportunity to attend an intermediate school free.
3. For every intermediate graduate the opportunity to attend a secondary school free.
4. The rapid extension of opportunities to secure instruction in practical farming, especially in the type of institution known as the agricultural school.
5. English as the language of instruction, since it can, by becoming the common medium of communication, advance national solidarity and provide the best conditions for individual and national progress.
6. Physical education for all pupils as a means of developing both physical and moral strength.
7. Industrial instruction as an aid to economic development and to character.
8. A school system made thoroughly democratic by the early abolition of all voluntary contribution and tuition schools. The placing of these schools upon a business-like basis through the enactment of legislation providing increased school revenues.
9. Permissive taxation legislation which will grant provincial and municipal governments greater autonomy and will make possible the extension and improvement of instruction in all grades.
10. Liberal appropriations for school purposes by the Insular government, with special provision for buildings and special types of schools.
11. Salaries for teachers and supervising officers in keeping with the educational and professional attainments required and the supreme significance of their service to the community.
12. The recognition of school supervision and teaching as professions demanding technical training and skill in no way inferior to those required in other professions.
13. Professional control of the school system by educators as the only means of retaining the confidence and support of the people and of putting into effect modern principles of business efficiency as applied to educational administration.
14. Provision by the government for the adequate training of librarians to take charge of school and other libraries and thus to contribute to educational progress through the formation of the reading habit by pupils and people.
15. Sites, buildings, and equipment suitable for conducting all school activities (physical, social, academic, industrial) in a way to achieve results worth while in each.

EDUCATION IN ALASKA.

1. ALASKA NATIVE SCHOOL SERVICE.

The schools for native children in Alaska are under the supervision of the Bureau of Education of the Interior Department, being

¹ Summarized from the report of Gov. Thos. Higg, Jr. for 1913, pp. 10-13.

directly supervised by five district superintendents in Alaska, responsible to the chief of the Alaska Division of the Bureau of Education, with headquarters in Seattle. For the past year these schools numbered 71, two of which were summer schools having a total enrollment of approximately 3,500.

The majority of these schools are located in native villages, each of which is usually in charge of a man and wife. On account of the variety of the work in connection with a native school the Bureau of Education finds it advantageous to appoint married people. Not only must these Federal employees be capable of teaching school, but they must also possess practical abilities which will enable them to promote native industries, domestic arts, personal hygiene, social welfare, and in general improve the living conditions of the adult as well as the school population of the village and the vicinity.

The schoolroom and living quarters of the employees are usually under one roof, forming a center from which quite often there issues the only uplifting and civilizing influence in that community.

There has been and still is an attitude of aloofness toward the native population by the white people of Alaska which is not conducive to rapid advancement by the former race. Quite often the bureau employees and the missionaries are the only whites who seem to have any interest in the natives' welfare. The native Alaskans are self-reliant, law-abiding, and honest, and the only help they have had from the Federal Government is the establishment of schools in the larger villages, a little medical relief, and the introduction of reindeer among the northern and western tribes. This assistance has been given them through the organization of the Alaska Division of the Bureau of Education.

Because of the fact that the native population is very scattered and the villages have rarely over 200 or 300 inhabitants, and generally much less than that, the bureau's educational efforts have been rather hampered. Were the natives located in large settlements of 500 or more, their education, medical relief, and industrial advancement would be simplified considerably. To this end the bureau has gradually been working toward attracting the natives to selected sections of land which have been reserved for the exclusive use of the natives and the bureau. These reserves are not to be confused with the Indian reservations of the States as they in no way interfere with the liberties and freedom of the native inhabitants thereon. By establishing industries on these reserves which will give the natives work the year around, schools that have more than the elementary grades, and by placing the care of their physical welfare in the hands of trained medical employees, the bureau will be able to secure maximum benefits to the natives. As long as the bureau's work is confined to numerous small villages, only minimum results can be expected at

a heavy cost per capita. At the present time the small schools do not justify grammar grades, and it has been customary for advanced native children to enter the Indian schools of the States. This usually results in physical breakdowns due to the change of climate, environment, and absence from home. It should be possible for native children to advance as far along educational lines as they desire without the necessity of leaving home. This can come only when the natives are persuaded to live in larger communities which will justify the establishment of larger and more complete schools. The concentration of the bureau's work on large villages, made possible through the favorable conditions of the reserves, will hasten the arrival of the day when the native of Alaska will take his place along with his white brother in the affairs of the Territory.

That the natives are loyal to the United States has been especially proved the past year through the work which the natives have contributed for the Red Cross and the purchases they have made of Liberty bonds and War Savings Stamps. Through the agency of the teachers, Red Cross auxiliaries have been established in many native villages, and the zealous and untiring work of these native organizations is a great credit to them. The work done in knitting, sewing, etc., for the Red Cross is equal to the best work done by white organizations. The purchase of bonds and stamps has not lagged behind the Red Cross work.

2. PUBLIC EDUCATION OF WHITE CHILDREN IN ALASKA.

A. INTRODUCTION.

Until very recently the public education of the white children of Alaska has received comparatively little attention. Before 1906, when the Territory was first allowed to send a Representative to Congress, education in Alaska centered upon the native population—Indians and Eskimos. Much has been written about the education of Indians in Alaska, but there has been little demand for an authentic account of them. The year 1917, however, saw so great an advance in the education of Alaska's white children that the demand for an accurate history of their education now warrants the compiling of all available definite information upon the subject.

Since the occupation of the Territory by white people, the native population has been practically stationary. The natives far outnumbered the white people until the Klondike gold rush in 1897 and 1898, and even now the latter compose only about 40 per cent of the total population, the number of white people at the present time being about 80,000.* Until 20 years ago the number of white

* Prepared by Flory Tracy, superintendent of public schools, Douglas, Alaska.
* Report of Gov. Egan, 1912, p. 10.

children in Alaska was so small in comparison with the number of native children that for the most part their education was identical with that of the native children. Even to this day, in the 85 native schools of Alaska, there are 390 children of mixed blood and 12 white children. This study therefore will of necessity treat of the education of the native children of Alaska in so far as the education of both native and white children was and is identical, although its main purpose will be to set forth the facts in the development of the public education of Alaska's white children.

B. RUSSIAN SCHOOLS.

The immigration of white settlers into Alaska began soon after the discovery and exploration of the country, in 1741, by the Russian adventurer, Behring. From that time until 1867, when Alaska was officially transferred from Russia to the United States, the white population was made up principally of Russian traders and their families and Russian priests of the Greek Catholic Church and their families. These Russian priests had, and still have, a very important part in the education of the Territory. At the time of the transfer, they were maintaining several schools in Alaska, five of these—two lower, two higher, and one theological school—being located at Sitka, at that time the capital of Alaska.

These schools were supported by the Russian Government. Indeed, until 20 years after the transfer, the Russian Government expended more money annually for the schools of Alaska than America itself. In that year, 1887, Gov. A. P. Swineford, in his report to the President of the United States, alleged that the 17 Russian schools were receiving from the Russian Government \$20,000, whereas the 15 United States schools were receiving from the Government at Washington, D. C., only \$15,000.

The principal Russian schools at that time were situated at Sitka (57 pupils), at Kodiak (22 pupils), at Kenai (15 pupils), at Nushegak (8 pupils), at St. Michaels (7 pupils), at Unalaska (59 pupils), at Unga (30 pupils), and at Belkovsky (25 pupils).

In 1894, the number of Russian schools had been reduced to 6, and in 1896, according to Gov. Sheakley's report, there were 8 such schools. Three or four of these Russian parochial schools are still existing in Alaska. These schools ministered principally to the Indians of their respective communities, but they were also of great benefit to the Russian white children of the Territory. After the transfer these schools taught English as well as Russian, the teachers often speaking very pure English. One of the most noted of these Russian families of priests was the Kashevaroff family, consisting of

five priests, two of whom are now conducting Greek churches at Kodiak and Juneau, respectively.

C. FIRST SCHOOLS FOR AMERICAN WHITE CHILDREN.

When Alaska became a possession of the United States, in 1867, it was first placed under military rule. It was then too remote from the Government at Washington to receive much attention of any kind, especially with respect to schools. The white settlers were but a handful, and the natives were considered "too unsavory to be touched." Accordingly, the white people at the capital, Sitka, which had in 1867 a total population of 5,000, took matters into their own hands, organized a city government, elected two school trustees, and made the mayor ex officio chairman of the school board. This school board immediately bought a building for \$300 and established a school. The school and town passed through a rather precarious 10 years, but both finally died in 1877.

This school for white children is the first of which we have any definite record, although two others are known to have existed at the same time on two of the Pribilof Islands, St. Paul Island and St. George Island, respectively, under the jurisdiction of the Alaska Commercial Co.

D. PRESBYTERIAN MISSION SCHOOLS.

In 1876, the board of home missions of the Presbyterian Church sent a missionary to Sitka. He at once established a school for Indian children, and through his influence, Miss Pauline Cohen, an American girl living at Sitka, was prevailed upon to conduct a school for white children, her salary being raised by subscription. For one year all the white children of school age at Sitka attended Miss Cohen's school, even those of the Greek Church, who were permitted, however, to receive religious instruction from the priest one hour a day. In 1879, Mr. A. E. Austin, of New York, took charge of this school, and in the next year his younger daughter helped him. The Presbyterian board of home missions soon extended its work among the Indians by establishing four day schools and two industrial schools, one of the latter at Sitka and the other at Wrangell. The authorities at Washington, D. C. then recognized the worth of these schools by granting them Government aid. The Sitka Industrial School, which finally absorbed the Wrangell school, is still pursuing its eminently useful work at an annual cost of \$35,000 to the Presbyterian Church, the United States Government having dropped its support in 1894. The school now has 150 pupils and 10 teachers.

MISSION SCHOOLS OF OTHER DENOMINATIONS.

Other denominations have at different times conducted schools in Alaska. Gov. A. P. Swineford in 1888 reported the number of these schools, excluding the 17 Russian schools, as follows:

- 1 Presbyterian Training School at Sitka.¹
 - 1 Friends' school at Douglas.²
 - 3 Catholic schools.
 - 2 Episcopalian schools.³
 - 3 Moravian schools.
 - 2 Swedish Lutheran schools.
- Total number, 12.

In 1892 Gov. Knapp recognized the great work of these mission-aries when he recommended to the President that these schools receive aid from the United States Government, stating:

Shall a little sentiment, or a pet theory not applicable here, prevent our encouraging these noble agencies for the accomplishment of the very work we, as a Nation, desire to accomplish, and which there is no hope of our doing ourselves? I do not hesitate to assert that the best educational work which has yet been done in Alaska has been done through these mission agencies.

This recommendation evidently found favor with the Government, for Gov. Sheakley in 1894 reported that the Government had that year given aid to 15 mission schools. However, this practice was unfortunately discontinued soon afterwards.

At the present time the Roman Catholic parochial schools are the principal remaining mission schools in Alaska. St. Ann's parochial schools at Juneau and Douglas are the largest of these, that in Juneau having an attendance in 1917 of about 60, while that in Douglas had an attendance in 1917 of about 45 pupils.

E. SCHOOLS MAINTAINED BY THE UNITED STATES GOVERNMENT.

In 1884, on May 17, Congress passed the first law with reference to education in Alaska. Section 13 of this "Organic Act," as it was called, provides:

That the Secretary of the Interior shall make needful and proper provision for the education of children of school age in the Territory of Alaska without reference to race until such time as permanent provision shall be made for the same, and the sum of \$25,000, or so much thereof as may be necessary, is hereby appropriated for this purpose.

A year later (Mar. 3, 1885) the execution of this act was committed to the Bureau of Education at Washington. The Secretary of the Interior, Hon. L. Q. C. Lammie, appointed Rev. Sheldon Jack

¹ Partly supported by the Government.

² In 1890 four Episcopalian schools in Alaska were placed in charge of Dr. Peter Trimble Rowe, who is now bishop of the Episcopal Church in Alaska.

son, of the Presbyterian board of home missions, the general agent of education for the Territory, a position which Rev. Mr. Jackson held until 1907. Mr. Jackson, during the summers, also established much-needed schools at Juneau, Sitka, Wrangell, Killisnoo, Hoonah, Haines, and Unalaska. He also sent teachers to several more remote places, even to an Eskimo village on the Kuskokwim River, 150 miles above its mouth at Bering Sea. As yet the white population numbered but 1,900 in all, and lived principally in southeastern Alaska. White children at this time attended the Government schools at Sitka, Juneau, Wrangell, and Killisnoo, but the majority of the children taught were Indians.

In 1886, Gov. Swineford lamented the fact that, although there were now 2,000 children of civilized parentage in Alaska, the appropriation by Congress of \$25,000 for their education had been reduced to \$15,000. The Indians, he complained, were, on the contrary, receiving not only the major part of this \$15,000, but \$20,000 besides for their industrial schools at Sitka and Wrangell. Up to this time Congress had appropriated \$75,000 for these two industrial schools, and but \$65,000 for schools without reference to race.

There was at this time no legislative assembly in the Territory, and the people of Alaska did not even have a representative in Congress, so that the written report of the governor was practically the only medium through which the needs of the Territory could be presented to the National Government. It is not to be wondered at, then, that the national legislators, none of whom had ever visited Alaska or had any means of studying authentic description of it, for there were none, should have taken so little interest in the few hundred white children of the northland who were growing up in ignorance.

However, in 1887, through the influence of Gov. Swineford, a Territorial board of education was appointed by the Secretary of the Interior, consisting of the governor, the judge of the United States District Court, and the general agent. This board was to carry out the orders of the Commissioner of Education.

In 1891, however, the management was again changed to Washington, D. C. After that, the general agent made one trip a year to Alaska, usually visiting the most conveniently located schools only, for there was not money enough to provide for the more difficult traveling.

In 1889 there were two schools exclusively for white children in Alaska, one at Juneau and one at Sitka. Two years later another was established at Douglas. That year Gov. Knapp complained that, although Alaska had a school population of 10,000, schools were provided for but 500.

F. SCHOOLS MAINTAINED BY INCORPORATED TOWNS.

As the white population steadily grew, one or two new schools were established each year. That the number of schools was never adequate, however, is evidenced by the fact that each governor kept pleading with Congress every year for larger appropriations.

In 1898, for instance, the second year of "movement and stir and push," following the discovery of gold at the Klondike, there were 9,000 more white people in the district than the year before, and the school appropriation was still only \$30,000. Skagway, a city at the entrance to the White Pass, the most popular route to the Yukon River, had 116 school children and no school. Dyea, another mushroom town, was without a school. Juneau, Douglas, and Wrangell were demanding extra teachers, but there was no money.

Finally, in 1899, Gov. Brady suggested a remedy. He urged Congress to grant to communities the power of incorporating town governments which could levy taxes and support their own schools. He also advocated that each incorporated town be allowed a certain amount of the license money from the sale of intoxicating liquors to spend upon its schools.

The next year Gov. Brady's suggestion was followed out. Section 28 of Document 137 of the second session of the Fifty-fifth Congress reads:

The Secretary of the Interior shall make needful and proper provisions and regulations for the education of the children of school age in the District of Alaska, without reference to race, and their compulsory attendance at school until such time as permanent provision shall be made for the same.

This law allowed communities to incorporate as towns and to use one-half of their liquor-license money for school purposes under the direction of a school board of three members.

Thus was instituted in Alaska the dependence of her schools upon the liquor business. It was, for the time being, at least, a remedy for the school situation in the crowded communities, since Juneau, for example, could in this way obtain \$15,000 for her schools.

Not long afterwards the incorporated towns were empowered to use all their liquor-license money for schools and to levy a school tax on property as high as 2 per cent. In 1901, under the incorporated-town law, Juneau, Skagway, Ketchikan, and Treadwell took charge of their own schools.

The schools for Indians within the limits of incorporated towns, as well as those outside these limits, remain to this day under the jurisdiction of the Commissioner of Education at Washington, who has appointed one superintendent and five district superintendents to take charge of them. Mr. W. T. Lopp, with headquarters at Seattle,

Wash., has been superintendent of these United States Government schools since 1910. (See Bureau of Education Bulletin, 1916, No. 47.)

The progress of the incorporated town schools for white children has been remarkable. In 1903, three years after the passage of the law, 9 such schools had been established. In 1904 the act providing for incorporated towns was amended to include among the communities which might incorporate those having a population of 300 or more. In 1908 there were 11 incorporated town schools, 13 in 1910, 14 in 1916, with 3 in incorporated school districts.

The status of these schools and of other educational activities is shown by the following quotations from the report of Gov. Riggs, 1918, pp. 75-79:

There are 15 schools in incorporated towns and 3 in incorporated school districts, supported in part by territorial appropriation. The averages for the 18 schools, as shown by the table of statistics, is as follows: Average number of teachers, 4.8, with average yearly salary of \$1,205.26 per teacher; average enrollment, 120; average daily attendance, 94.2; average cost of maintenance, exclusive of teachers' salaries, \$3,777.82. The average cost per pupil was \$80.14, as compared with \$76.84 for the previous year.

Statistics of white schools for the school year 1917-18.

Location.	Number of teachers.	Total enrollment.	Average daily attendance.	Term (mos.).	Grade school graduates.	High school graduates.	Expenditures.		
							Salaries of teachers.	All other.	Total.
<i>In incorporated towns.</i>									
Cordova.....	4	106	71.70	9	4	.....	\$5,220.00	\$7,660.59	\$12,880.59
Dorcas.....	9	206	171.40	9	12	4	0,005.04	4,172.65	13,177.69
Eagle.....	1	11	8.81	7	1	.....	840.00	408.75	1,248.75
Fairbanks.....	8	205	181.60	9	19	7	15,189.75	5,640.10	20,829.85
Haines.....	2	46	31.00	9	2	.....	1,800.00	518.28	2,318.28
Iditarod.....	1	8	8.00	9	.....	.....	1,350.00	380.78	1,730.78
Juneau.....	14	348	271.28	9	21	13	16,490.00	7,714.24	24,204.24
Ketchikan.....	9	254	194.70	9	13	2	10,665.00	4,693.47	15,358.47
Nome.....	6	127	92.90	9	3	1	8,775.00	4,429.97	13,204.97
Petersburg.....	4	91	71.92	9	4	.....	3,015.00	2,922.75	6,937.75
Seward.....	4	103	84.00	9	.....	.....	4,725.00	2,416.45	7,141.45
Skagway.....	5	122	96.30	10	.....	.....	4,005.00	4,281.00	8,286.00
Tanana.....	1	17	14.00	9	.....	.....	1,600.00	564.22	2,164.22
Valdez.....	5	101	64.00	10	3	2	4,950.00	4,784.25	9,734.25
Wrangell.....	4	102	79.20	9	4	.....	3,780.00	1,605.85	5,385.85
Total.....	77	1,847	1,440.51	.....	93	29	92,509.79	51,704.45	144,214.24
<i>In incorporated school districts.</i>									
Anchorage.....	8	274	219.6	9	14	.....	10,332.50	12,054.82	22,387.32
Nenana.....	1	28	27.1	8	3	.....	1,415.00	3,991.00	5,406.00
Talkeetna.....	1	8	8.0	6	2	.....	600.00	347.43	947.43
Total.....	10	310	254.7	.....	19	.....	12,347.50	16,296.34	28,643.84
Grand total.....	87	2,157	1,695.51	.....	112	29	104,857.29	68,000.79	172,858.08

CITIZENSHIP NIGHT SCHOOLS.

Night schools had been organized in two of the cities of Alaska prior to the 1917-18 school year. The passage of the citizenship night-school law as contained in chapter 33, 1917 session laws, and the appropriation of \$5,000 for

carrying out its provisions during the period ending March 31, 1919, however, gave a new impetus to this branch of educational activity. Six communities organized under its provisions and received Territorial appropriations amounting in all to \$2,918.81. In addition to undertaking work of the scope permitted under the law referred to, several communities conducted night schools, which offered a greater variety of subjects and which attracted a larger enrollment than would have been possible with the limited amount of money available from the Territory. In all, seven schools were organized. No reports are available from one, so that general statistics appearing below cover but five citizenship night schools and six general night schools.

Citizenship night schools.

School.	Enrollment.		Average attendance.		Sessions weekly.	Number weeks.	Expenditures.
	Men.	Women.	Men.	Women.			
Anchorage.....	100	50	50	25	5	24	\$1,246.90
Douglas.....	6	19	5	11	2	24	375.00
Juneau.....	20	11	8	5	3	20	378.68
Ketchikan.....	27	17	11	10	2	15	397.00
Nemana.....	46	3	39	3	5	16	481.00
Nome (no report).....							400.00
Total.....	199	100	113	54			3,277.58

The difference between the total expenditure, \$3,277.58, and the amount received from the Territory, \$2,918.81, represents money collected from tuition fees, etc., for the support of these schools.

Different subjects offered: Reading, writing, spelling, arithmetic, English, United States history, United States civics, public speaking.

Different nationalities (24) represented: American, Alaska native, Austrian, Bohemian, Bulgarian, Canadian, Danish, Dutch, Finnish, French, German, Greek, Irish, Italian, Japanese, Mexican, Montenegrin, Negro, Norwegian, Russian, Scotch, Serbian, Swedish, Swiss.

General night schools, including citizenship night schools.

School.	Enrollment.		Average attendance.		Sessions weekly.	Number weeks.	Expenditures.
	Men.	Women.	Men.	Women.			
Anchorage.....	150	63	100	50	5	35	\$1,741.90
Corlona.....		20		19	5	19	350.00
Douglas.....	10	58	8	50	2	24	577.75
Juneau.....	24	33	11	23	3	30	787.41
Ketchikan.....	22	17	11	10	2	15	397.00
Nemana.....	40	3	39	3	5	16	480.00
Nome (no report).....							400.00
Total.....	239	214	189	155			4,734.06

Nationalities represented, the same as above.

Subjects the same as above with the addition of French, Spanish, shorthand, typewriting, business English, and mineralogy.

G. THE NELSON SCHOOLS.

Until 1905 the children of white or mixed blood outside of incorporated towns were compelled to attend the United States schools,

without reference to race, which had been provided for 20 years before, and which were attended chiefly by Indians. But on January 27, 1905, Congress passed what is known as the Nelson bill, providing for the establishment of a school exclusively for children of white or mixed blood in any community applying for it which had at least 20 such children of school age. The governor was made ex. officio superintendent of these so-called Nelson schools, and they were to be supported by 25 per cent of the tax money collected outside of incorporated towns by the United States Government.

This law has proved a boon to many communities in Alaska, although each year until 1917 the governor has without avail sought to have the minimum number of children required for the establishment of a Nelson school reduced from 20 to 15.

Following is a table giving all the available statistics regarding the progress of these Nelson schools:

Statistics of the Nelson schools.

Date.	Number of Nelson schools.	Number of teachers.	Number of pupils.	Total cost of maintenance.
1907.....	10	.....	438	\$19,980.00
1908.....	17	.....	672	38,116.00
1909.....	21	.....	854	40,782.00
1910.....	21	.....	891	36,486.00
1911.....	22	.....	.....	.....
1912.....	.....	.....	.....	50,000.00
1913.....	28	37	943	.....
1914.....	27	39	941	.....
1915.....	31	41	961	65,563.53
1916.....	47	50	1,470	78,241.49
1918.....	46	58	1,180	100,046.84

ALASKA AGRICULTURAL COLLEGE AND SCHOOL OF MINES.¹

Chapter 34 of the session laws of 1917 provides for the acceptance of grants of land and money for the Alaska Agricultural College and School of Mines in accordance with the provision of the acts of Congress approved August 30, 1890, and March 4, 1915. Under chapter 62 of the session laws of 1917, providing for the establishment of such college, the sum of \$60,000 is appropriated for construction of buildings and the purchase of equipment. The building, on a site near Fairbanks, set aside for the purpose by Congress, is well under way.

II. NATIONAL LEGISLATION IN 1917 REGARDING THE WHITE SCHOOLS.

Alaska was without a representative in Congress until 1906, when her first Delegate was elected. From that time on the needs of Alaska have been set forth before the National Government more forcefully than ever before. Although the Delegate has no vote, he has a right to speak in the House of Representatives, is a member of various committees, and can bring the affairs of Alaska to the attention of the various officials at the capital in person.

¹From the report of Gov. Egan, 1918.

It was not until Congress authorized the building of a Government-owned railroad in Alaska from Anchorage to Fairbanks in March, 1917, that the people of Washington could be made to take much interest in Alaskan affairs. The beginning of the European war in the same year, too, and the opening of the Panama Exposition at San Francisco in 1915, caused thousands of American tourists to visit Alaska, and thus made reference to Alaska on the floor of Congress more frequent and intelligible.

The first national legislation directly influencing Alaskan schools for white children was passed in 1917. The reader will recall that the schools of Alaska, and especially those of incorporated towns depended for their support largely upon the liquor traffic license money. In November, 1916, the people of Alaska by referendum voted in favor of Territorial prohibition. It had been the intention of the members of the second session of the Territorial legislature who provided for this referendum vote that, in the event of a victory for prohibition, a law restricting the sale of intoxicating liquor should be framed by the next legislature to go into effect on January 1, 1918. Social workers of various organizations, however, realized how precarious the passage of such a bill would be so long as the legislature had as little power for making up the deficit in school money as it then had. Accordingly, largely through their efforts a "bone-dry" law was passed by Congress on the last day of its sixty-fourth session, March 3, 1917. The news of the passage of this bill was at first received with indifference even by the prohibitionists of Alaska, and with disgust by the people of incorporated towns, the newspapers of which attacked its advocates very bitterly. But these feelings were soon changed to patriotic rejoicing when it was learned that Congress had also granted to the Territory the right to control her own schools for white and native children, and to use Territorial funds for their support. This latter provision at once gave to Alaska about \$300,000 to spend upon her schools.

I. TERRITORIAL LEGISLATION REGARDING SCHOOLS FOR WHITE CHILDREN.

On March 4, 1913, the first Territorial legislature convened in Juneau, the capital. This body was composed of two houses, the house of representatives with four members from each of the four judicial divisions of Alaska, and the senate with two members from each of these judicial divisions. Its powers were very limited, but it passed many necessary and progressive laws, 81 in all, the most notable of which was the granting of the suffrage to women.

This legislature did two noteworthy things for education. One was to pass a law compelling children between the ages of 8 and 16, living outside of incorporated towns, and within 2 miles of a school,

to attend that school. Although this law was not enforced, because there was no appropriation made by Congress for truant officers, it at least established a good precedent for future legislation. The other noteworthy act was to memorialize Congress for a board of education, a board of examiners, and two school superintendents for the white schools of the Territory.

That same year Gov. J. F. A. Strong recommended an appropriation by Congress for the working out of a uniform school system, with uniform textbooks and a uniform course of study. This recommendation Gov. Strong repeated each year until 1917.

At the second session of the Alaska Legislature a bill for a uniform school system was actually framed and passed. This bill made provision for an appointive school board of three members, namely, the governor (ex officio president and superintendent of public instruction), the Territorial treasurer, and the assistant superintendent of public instruction, who was to be at first appointed by the governor, but later elected every four years. The assistant superintendent, who was to have charge of instituting and administering a uniform school system, was to be a citizen of the United States, a graduate of a State normal school, a graduate of a standard college or university, and a teacher of at least five years' experience. He was to receive a salary of \$3,000 annually and a maximum of \$2,000 for traveling expenses.

The legislature of 1915 passed one other important school law. This was a bill making it possible for Nelson schools to be established in communities having but 10 children of school age instead of 20, as required in the original Nelson bill of 1905.

Both these bills, however, when transmitted to Congress, were accounted to be out of the scope of power granted to the legislature in 1912 (Public Act 334) and were therefore void and of no effect.

The third session of the legislature in 1917 was held immediately after the passing by Congress of the "bone-dry law" for Alaska and of the law granting the Territory both money and power for school legislation. It was therefore with great interest that the people awaited its acts relating to schools. Nor were they disappointed in their expectations. The senate and the house of representatives, as soon as their organization had been accomplished, appointed a joint committee on education consisting of five representatives and two senators. It was unanimously agreed that a uniform school bill must be passed and that some provision must be made for replacing in incorporated towns the school revenue to be lost through prohibition.

There were many other important school questions to be settled. The Nelson school bill must be changed in effect so that communities having fewer than 20 school children might establish schools. This question was decided by House bill No. 84. This bill reads:

The clerk of the district court shall have the power, and it shall be his duty, in the division to which he is appointed and in which he resides, upon petition as hereinafter specified, to establish by order in writing a school district at any camp, village, or settlement outside of the limits of any incorporated town, but such school district shall not embrace more than 40 square miles of territory, nor contain less than 10 resident white children between the ages of 6 and 20 years.

And further that—

The qualified voters of said school district shall choose by a plurality vote a school board of three members who shall have the power to build or rent the necessary schoolhouse, or schoolrooms, to equip the same with the necessary furniture and fixtures, to provide fuel and light, to hire and employ teachers, and in general to do and perform everything that may be necessary for the maintenance of the public school. The members of said board shall hold office for the term of one year and until their successors are elected and qualified. An annual election shall be held each year, after the first election, for the election of members of said board.

The bill also provides more money for school buildings than the original Nelson bill. Quoting from Gov. Strong's report of 1916, the inadequacy of this former fund is clearly set forth:

As a matter of fact, while the teachers employed are without doubt far superior to the school teachers of 25 or 50 years ago, the schoolhouses and grounds are no better, and in some cases not so good as those found a half century ago in many of the States of the Union. The cost of construction and equipment of schoolhouses in rural communities is limited to \$1,000, a sum so manifestly inadequate that comment would seem to be superfluous. The demand for funds to maintain the schools already established has so increased that the strictest economy must be practiced in order to maintain schools in all of the organized districts. Therefore, the school buildings are inferior and lack almost every modern appliance and comfort, except desks and seats. The school grounds are for the most part unsightly and repelling instead of being inviting and attractive, although as a rule the teachers do the best with the limited means at their command to make their surroundings as pleasant as possible.

This condition is met by the following provision in House bill No. 84:

The governor shall assign and set apart to each school district established and organized under the provisions of this section a sum not less than \$300 nor more than \$1,800, in proportion to the number of pupils in the district, for the construction and equipment of a schoolhouse, which sum shall be paid by the Secretary of the Treasury to the treasurer of the school district, upon the order and voucher of the governor, out of that portion of said Alaska fund set apart for the establishment and maintenance of public schools.

A second important school bill was House bill No. 35, framed and introduced by the joint committee on education. This bill was framed especially to meet the peculiar situation in Anchorage. Anchorage is a new town which has grown up since the choice of that point on Cook Inlet in 1915 as the terminal from which to begin work on the Government railroad opening up the Matanuska coal

fields. This town, the site of which is owned by the Government, is under the administration of the Alaska Engineering Commission. The commission has constructed an ideal municipality with graded streets, sidewalks, telephone lines, water service, Federal jail, and post-office. A school for whites, under the Nelson system, has been built there, seating 150 pupils and having in 1916 four teachers. But the town is steadily growing, and the school needs are much larger than the Nelson school system can fulfill. Since the town by its nature can not be incorporated, it was incumbent upon the legislature of 1917 to devise some means of establishing a better school at Anchorage. House bill No. 35 therefore makes provision—

That any town, village, or settlement in the Territory of Alaska outside of the limits of any incorporated town, having a population of 100 or more and 30 children between the ages of 6 and 20 years, may incorporate as a school district in the manner hereinafter provided; but such school district shall not embrace more than 40 square miles of territory.

That each school district organized under the provisions of this chapter shall have a board of directors of five members to be elected as hereinafter provided, who shall have the exclusive management and control of all school matters in the school district subject to such general laws governing the grading and superintendency of schools as may be now or hereafter enacted by the Territorial legislature.

That said boards of directors shall have the power to levy and collect taxes upon all real and personal property within the limits of their respective districts not exempt therefrom by existing law, not to exceed 1 per cent of the assessed value of such property in any one year and all moneys collected by such taxation shall be expended in payment of the cost of levying and collecting such taxes, in payment of the cost of conducting school elections, and for the construction and maintenance of schools only.

Section 13 of the act also states that "an emergency is hereby declared to exist, and this act shall be in effect from and after its passage and approval."

But the educational bill in which the people of the Territory felt most interest was that intended to furnish a substitute to the schools of incorporated towns for the revenue previously derived from saloon licenses. Two such bills were introduced in the house of representatives, and the other the "75 per cent" bill. The first of these, the so-called "fifty-fifty" bill, proposed to give to incorporated towns one-half of the money needed to meet their expense budget for the ensuing year. The other, the "75 per cent" bill, proposed to grant to incorporated towns three-fourths of the money needed to maintain their schools during the preceding year. Both bills included a clause making \$15,000 the maximum amount to be granted to any one school. After many weeks of debate and intense activity on the part of champions and opponents alike, near the close of the session the "fifty-fifty" bill, now changed to a sixty-forty compromise bill, was passed. The senate then amended it to grant

to incorporated towns not 60 per cent but 75 per cent of their school maintenance funds. The house concurred in this amendment and the bill was signed by the governor, causing, of course, great rejoicing in all incorporated towns.

The Territorial money available for the maintenance of these schools and the Nelson schools for the next fiscal year will be as follows:

Twenty-five per cent of the Alaska fund, which comprises "all moneys derived by the Federal Government from business and trade licenses outside of incorporated towns and which are passed to the credit of the Treasurer of the United States." This money was appropriated by Congress in 1913 for the maintenance of white schools outside of incorporated towns, and in 1916 amounted approximately to \$82,500.

Twenty-five per cent of the Territory's 25 per cent of receipts from the National Forests in Alaska, in accordance with act of Congress, June 30, 1906, amended March 4, 1907, and May 23, 1908, respectively, which appropriates this money for the benefit of public schools and public roads. For the year ending December 31, 1916, this fund amounted to \$21,851.75.

About \$240,000 was derived from the Territorial Revenue Act passed by the Alaska Legislature, 1915, which imposes a graduated schedule of taxation upon fisheries and upon cold-storage fish plants.

Last of all was passed the educational bill, constituting the uniform school law, of which the Territory had most need in order to reach the standard set by other progressive States and countries. This law has produced a marked change in the status of the white schools of Alaska.

Before this time the governor of Alaska was the ex officio superintendent of public instruction, but because of his manifold duties, he had far too little time to devote to the schools. Under Gov. Strong excellent results were obtained in the compiling of statistics of white schools and in the spreading of information and creation of public opinion which brought about the progressive legislation of 1917. Gov. Strong instituted the issuing of two-year certificates to teach in Alaska to all teachers actively engaged in teaching in the Territory, upon presentation of such certificates, diplomas, or other credentials as would properly qualify them for such a permit.

Until 1917, however, "there was no supervision of schools and there were no courses of study in the rural schools with any degree of uniformity. Lacking systematic inspection, there was no cooperation among the schools. There were no teachers' organizations, and the only school publications were High School Annuals published by such schools as Juneau and Douglas. The courses of study were not standardized, and they, as well as the textbooks, were

changed with the advent of every new teacher, who chose both course of study and text books from those he or she was most familiar with, usually those of Washington, Oregon, or California. Offsetting these disadvantages, however, is the fact that—

The vast majority of the teachers in Alaska have two qualifications which make for successful school work in this country where direct supervision of schools is necessarily limited—these are professional training and experience. Two-thirds of the teachers of Alaska are normal school or college graduates; 88 per cent of the high-school teachers are college graduates who have in addition had advance study. The average teaching experience of Alaska teachers is seven and one-half years, exclusive of the school year for which the report is made.

Commendable work has therefore been accomplished even under trying circumstances. This is true of incorporated towns especially. The following quotation from Gov. Strong's report of 1916 well summarizes the progress made:

The graded schools maintained in incorporated communities are doing good work under efficient superintendents, and with excellent courses of study. Graduates of some of the high schools of Alaska are matriculated at the University of Washington, located at Seattle, without examination, and each year there is a substantial enrollment of students from Alaska. Graded schools are maintained in 14 incorporated towns of the Territory, and in 9 of these towns high schools are established.

In April, 1916, the high schools of Douglas and Juneau were accredited by the University of Washington after an inspection tour by Dr. F. W. Meisnest, of the university, who pronounced them on a par with the accredited high schools of corresponding size in the State of Washington. In these incorporated town schools, many of the most progressive theories of education have been worked out to successful conclusions. For instance, in Douglas, during the year 1916-17, the following projects have been successfully carried on:

The Six and Six Plan, whereby a junior high school consisting of the seventh and eighth grades has been established, making the break between grade and high school at the end of the sixth year, and giving these pupils the advantage of the departmental plan.

Manual training and domestic science in high school.

A school library conducted by high-school pupil librarians.

A high-school annual paper, with 75 pages of reading matter and 15 photographs.

A high-school dramatic club which produced the first pageant in Alaska, and earned for the school last year about \$350.

A high-school orchestra.

Interscholastic debating.

High-school athletics, with several interclass and interschool athletic teams.

The application of Thompson's minimum essential tests.

Music, drawing, physical culture, manual arts, and gardening throughout the grades.

Medical and dental inspection.

A parent-teacher association of over 100 members, which purchased a \$200 victrola, a set of dishes, and Indian clubs and dumb bells for the school.

It is evident, however, that the schools of the incorporated towns as well as those of the Nelson system suffered from lack of cooperation and systematization. As remedying these grave defects the importance of the uniform school act of 1917, described above, can not be overestimated. As finally adopted, this act provided for a Territorial board of education to consist of four elected members, namely, one senator from each judicial division, and the governor, who should be ex officio president of the board. The first board, however, was elected by the legislature from the members of the senate then in session, and the school board which is now in office and will be until the next session in 1919 is composed of the following members:

- Gov. Thomas Riggs, Jr., ex officio president.
- Hon. O. P. Hubbard, of Valdez, president of senate, 1915.
- Hon. James Robert Heckman, of Ketchikan.
- Hon. O. P. Gaustad, of Fairbanks.
- Hon. F. A. T. Aldrich, of Nome.

The act further provides for the appointment by the school board of a Territorial commissioner of education, at a salary of not more than \$3,600 per annum, who shall have an office in Juneau with an allowance of not more than \$2,000 per annum for clerical help and office expenses. He is to be chosen upon merit, and the only limitation put upon his qualifications is that he shall be a citizen of the United States. A maximum sum is appropriated for his traveling expenses also, and three months' leave of absence from the Territory is granted him each year for the purpose of study and attendance upon educational conventions. The commissioner's duties as set forth in the act include: The supervision of all matters pertaining to the public schools of the Territory of Alaska, to include all schools both within and without incorporated towns; the obtaining of annual reports from the president, superintendent, or principal of all public educational institutions and private schools; the keeping in his office of records, books, and papers pertaining to the educational interests of the Territory; the preparing of a minimum course of study and a uniform textbook system for the public schools of the Territory; the publishing and distributing to school boards of the Territory bulletins or pamphlets relating to educational work; the prescribing of rules and regulations for the government of the public schools, including rules of attendance, punctuality, truancy, etc.; the examining of schools throughout the Territory, and accrediting of those reaching a certain standard; and the examining of and granting of certificates to applicants desiring to teach in Alaska.

Immediately after the close of the session of the legislature, on May 4, 1917, the Territorial school board met, organized, and considered applications for the position of Territorial commissioner of education. Mr. L. D. Henderson, then superintendent of schools at Juneau, was chosen to be the first Territorial commissioner. He has already established an office in Juneau, and has begun the arduous task of standardizing the white schools of Alaska.

CONCLUSION.

It will be seen that the public schools for the white children of Alaska had to pass through three distinct phases: First, they had to be separated from the influence of religious denominations, in 1894. Secondly, they had to be distinguished from schools for Indian children in 1900 and in 1905. Lastly, they had to be brought out of the jurisdiction of a remote and apathetic National Congress into the control of the people of Alaska themselves. Now that this last step has been attained, it is hoped that the white schools of Alaska rank among the most progressive schools in the world.