

Public Education
IN
Puerto Rico



BY KATHERINE M. COOK

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NOTE

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INTRODUCTION



PUERTO RICO has for approximately 35 years been a part of the territory and citizenship of the United States. During these years mutual understandings and appreciations have broadened and deepened, and mutual interests have developed. None of our noncontinental parts are as near to the mainland nor as near to the bulk of our people who live on or adjacent to the Atlantic seaboard as are Puerto Rico and the Virgin Islands—approximately 40 miles apart. None are as intimately associated with the period of discovery and early history of America and none are of more immediate interest so far as their general welfare and future progress are concerned. Constantly increasing numbers of the people of Puerto Rico are coming to live on the mainland, and even greater numbers associate with it their hopes and aspirations for social and economic progress.

Public education, patterned after that on the mainland, was established in Puerto Rico following American occupation. The educational system has, however, developed quite differently because of the growing effort more nearly to adapt it to the situation and special needs of the people. Consequently, while ultimate objectives of education are the same as on the mainland, immediate aims, school curricula, and school practices adapted to the Puerto Rican situation have been and still are in order. Partly because of these differences and adaptations, but chiefly because of our interest in the welfare of the people and our belief in education as the ultimate means to achieve it, the development and present status of education in Puerto Rico, as in other outlying parts, are matters of considerable significance on the mainland.

This bulletin presents an account of that development and status in the Island, with some consideration also of conditions which immediately

influence or have influenced educational practices. It is based on personal observation of the schools and the school systems made early in 1933. For the opportunity to visit the schools freely throughout Puerto Rico, the author is indebted to the courtesy and cooperation of the Commissioner of Education and his staff. It is believed that the information given will be of interest especially to school officials of the United States and that it will be a means toward better understanding of the problems being met and deeper appreciation of the progress made and under way in this interesting part of our country.



CHAPTER ONE



About the Country and the People

PUERTO RICO is approximately 1,400 miles southeast of New York, from which it can be reached in a 4-day journey by several excellent steamship lines maintaining regular and frequent schedules. From Florida regular air transportation is available. It is directly north of the Caribbean coast of South America, approximately 1,000 miles east of Havana, and lies directly east of Santo Domingo. It is bordered on the north by the Atlantic Ocean, on the south by the Caribbean Sea. The governmental unit includes besides the main Island a few small islands just off the coast which are Puerto Rican municipalities.

Puerto Rico has an area of 3,435 square miles, approximately equal to that of Connecticut and twice that of Long Island. Its population is more than a million and a half, making it one of the most densely populated sections of our country. In shape the Island is a rough parallelogram, a little more than 100 miles long and averaging 35 miles wide. It is alined almost exactly east and west, and its shore line is nearly straight and quite regular. It is cut by mountain ranges into distinctive valleys and ridges which lend it both diversity of climate and beauty of scenery. The portion of the Island rising above sea level is the eroded crest of a submerged mountain range. It rises steeply from the sea to an average altitude of 2,500 feet along the divide which extends from east to west across the Island about two thirds of the way between the northern and southern boundaries. The highest peak is more than 4,000 feet above sea level. The coastal plain area is relatively narrow--probably not more than 6 miles wide at any place. The Island, as a whole, is therefore hilly and its surface irregular throughout almost its entire area.

Puerto Rico was originally densely wooded, but has been denuded of much of its original timber. Along the southern coast

irrigation is necessary to raise either trees or crops successfully. It lies in the path of the West Indian hurricanes and suffers serious disaster from these storms at irregular but sometimes frequent intervals.¹ The devastating effects of the serious hurricanes of 1928 had not been overcome when the almost equally disastrous one of 1932 followed. Occasional earthquakes are to be expected. The climate is warm, equable, and comfortable. The mean temperature is 76° F., with a variation of from 73° to 90°. August is the warmest month; January the coldest.

To continental United States, Puerto Rico has long been of unusual interest because of its early history during and immediately following the period of discovery of the Western Hemisphere and because of its strategic position. The Island was discovered by Columbus on his second voyage to the New World in November 1493—one of the two places actually visited by Columbus over which the flag of the United States now floats. The romantic Ponce de Leon—well known to every school child—then an unknown adventurer, accompanied him on this voyage and was later resident governor of the Island. The Spaniards found friendly Indian inhabitants to whom their home was known as the “Island of Borinquen”, the word meaning “The Land of God.” Columbus himself gave the Island its Spanish name—San Juan Bautista, later shortened to San Juan, but Ponce de Leon named the bay—Puerto Rico—the “rich port.” The names are retained though interchanged, Puerto Rico now being the Island, San Juan its chief and capital city. The Spanish spelling “Puerto Rico” has always been used by the people of the Island, and by a recent act of Congress it is now used on the continent.

Puerto Rico's strategic position at the eastern portal of the Caribbean area was recognized by Spain following early colonization. San Juan, then as now the capital city, was Spain's second strongest fortress in the New World. To continental United States in the twentieth century its position is of even more significance. It lies at the gateway to our own Southern States and the Canal Zone as well as to our Caribbean and Latin-American neighbors, many of whom, like the Puerto Ricans, are

¹ de Arellano, Rafael Ramirez. *Los Huracanes de Puerto Rico*. The University of Puerto Rico, Rio Piedras.

Spanish-speaking and share with them a common background of Latin culture. Former Governor Theodore Roosevelt recently made the statement that the Anglo-Saxon and Spanish-American civilizations meet in Puerto Rico.

When Ponce de Leon became governor of Puerto Rico in 1509 the population consisted of approximately 200 Spanish male



A typical street scene in a Puerto Rican town.

adults and six or seven thousand Indians. This small group of Indians was unable to preserve its identity as a group during the troublesome history of the Island. Early in the Spanish occupation the original Indian group, as such, practically disappeared through war, disease, emigration, enforced labor, and intermarriage. The remnant of Indians were driven more and more to the interior and mountain regions and were absorbed in the early years of settlement, though they have contributed a recognizable trace of their blood to a constantly widening circle of descendants.²

Meanwhile, during the sixteenth, seventeenth, and eighteenth centuries, Negro slaves were introduced. Though Spanish immigrants with their wives and families came in relatively large num-

² Clark and associates. *Porto Rico and Its Problems*. Washington, D.C., Brookings Institution.

bers, especially in the early part of the sixteenth century, the number of Negroes on the Island was much larger than of whites even as early as 1590. Repeated efforts of the Spanish rulers to encourage Spanish settlers to come to Puerto Rico were frustrated by continuous attacks of English, French, and Caribs. The peasant class of the present time in the mountain sections of the Island is made up in part of descendants of these Spanish settlers, who were individualists and who therefore scattered throughout the Island cultivating more or less isolated farms. When they were not married to Spanish women they mixed freely with Indian women and later with Negro women slaves. However, according to Professor Rosario,³ a great number have kept their Spanish blood pure, and characteristic Spanish types are noticeable today in both town and country, but more generally in the more isolated rural sections.

As a rule for the Island as a whole, the property-owning and professional classes are white. The laboring classes, exclusive of the peasant mountaineers indicated above as pure Spanish are in varying degrees colored. Race lines are not drawn as strictly as on the mainland. Negroes are found in all walks of life and make up approximately 17 percent of the teaching profession. Colored pupils attend the schools on terms of equality.

According to the Brookings Institution study,⁴ the mountain peasant, or "jíbaro", who constitutes an important part of the rural population "presents some parallels with the cabin dwellers of the southern Appalachians." He was driven to the mountains by the introduction of African slaves, and generations of neglect have given him some of the mores of the indigenes.

Spanish is the common language of the Island, and the educated classes have a Latin cultural background. The people at large are only partly Latin, however, in race, and their manners and mental habits have been modified by centuries of primitive environment and more recently by 30 years of contact with North Americans.

Puerto Rico is essentially rural with a population almost exclusively native born and, in spite of considerable mixture, over three-

³ Rosario, José C. *The Puerto Rican peasant and his historical antecedents. Puerto Rico and its problems*, Appendix A. Washington, D.C., The Brookings Institution.

⁴ Clark and associates. *Op. cit.*

fourths of which is classified by the 1930 census report as white. There are but two cities of appreciable size, San Juan with approximately 100,000 population and Ponce with approximately 45,000. About 300,000 of the total million and a half people live in towns of more than 10,000, leaving the bulk of the population in the many small towns with a population of 1,000 or less and in the open country.

Even the prevailing density of population has not wholly overcome the isolation in which many of the people live. Mountain cabins, not far apart as the crow flies, are still almost inaccessible except on foot and by precipitous trails. Many mountain sections are not reached by improved roads and are as yet relatively untouched by modern life. In other than mountainous sections paved roads are rapidly changing the aspect of the country. Almost continuous villages follow the borders of the new thoroughfares.

Puerto Rico has not, however, been untouched by the movement toward urban centers which has been taking place on the mainland. The increase in population has been going on more rapidly in urban than in the rural centers since 1910. The 1930 census report classifies the total population of 1,543,913 as 72.3 percent rural and 27.7 percent urban; as 74.3 percent white and 25.7 percent colored. Only 6,000 of the whole number enumerated are foreign born.

Illiteracy which has decreased about half since the American occupation, decreased from 55 to 41.4 percent between 1920 and 1930 among persons 10 years of age and over. The number of persons who have a working knowledge of English is estimated at 20 percent of the total population—an increase since 1920 of 10 percent.

The high percentage of dependent and school-age children in the population is an important factor in questions concerned with supplying adequate school facilities. Fifty-three percent of the total population is 19 years of age or under, while 39.5 percent approximately is 5 to 19 years old—the group usually considered as of school age. The percentage of the total population under 14 and therefore practically dependent is 42 as compared with 31 for continental United States.

The Economic Situation

The conditions of living among the masses of the population—in Puerto Rico the rural working classes—is a very fundamental consideration in understanding the problems and appreciating the progress which has been and is being made toward the establishment and maintenance of a public-school system for all the children. Since the bulk of the people are rural workers, their situation is the dominant one and if ultimate improvement is to be attained, the one to receive primary, but not sole consideration.

In judging the implications of the economic situation as briefly described here, obviously one keeps in mind that requirements of certain kinds, housing, fuel and clothing, for example, are far different in the tropics than in the temperate zones. Conditions of life in Puerto Rico are probably not worse than those in other densely populated tropical countries.

Authoritative reports such as that previously referred to, *Porto Rico and Its Problems*, indicate that the standard of living on the whole is somewhat higher than it was 30 years ago, though it has not been improving in recent years. Much private capital has been invested since the American occupation and resulting developments have given employment to thousands of laborers. Many new industries have been opened up for both men and women. Housing has improved, even among the poorest people, in that the board houses with galvanized roofs, small and unsatisfactory as they are, have often replaced thatch shelters without floors; sanitary conditions have improved, and there are more and better clad children in the public schools than before. However, as Puerto Rico is now a part of the United States one must think in terms of prevailing standards of living on the mainland so far as they affect matters not subject to climatic or similar essential differences in the situation. As explained in *Porto Rico and Its Problems*, "the people quite naturally aspire to share in the economic as well as the political advantages which the union involves."

While Puerto Rico is rural and agricultural, both rural life and agriculture are quite unlike either on the mainland. Crops are not raised to the same extent for home consumption, particularly

for family consumption. Much of the food consumed is imported. Industrialized agriculture has displaced independent small farming to a great extent. Since the American occupation small farms have decreased in number and large industrialized farms have increased in acreage. Labor-saving machinery has been developed and is used on the large estates where sugar, coffee, tobacco, and citrous fruit farming are carried on. These changes have been accompanied by a rise in land values so that the farmer who formerly raised food for his own and local consumption cannot now buy land, and he becomes a laborer on the large estates.

The rapid increase in population aggravates the situation, and poverty is widespread, especially among rural people. Families are large; probably representative of the general situation is 1.5 adult male workers as wage earners for a family of 8.1 persons. Wages vary from 50 cents per day to slightly over \$2. The bulk of the workers, however—nearly 80 percent, according to a recent investigation,⁵ receive 70 cents to \$1.25 per day. Workers lose much time in the agricultural industries. Adult workers have 4 or 5 days' work a week during the time they are on the pay roll—that is, during the season in which the particular industry in which they are engaged is productive. The average annual earnings are difficult to estimate, as many laborers are employed only a short part of the year. However, Professor Rosario⁶ estimates typical wage incomes as \$135 a year in coffee and tobacco and \$169 in sugar and fruits. This is exclusive of supplemental income from the labor of women and children in the tobacco industry.

An important source of additional income in certain parts of the Island is the home work done by women and children, chiefly embroidery. Such earnings may run from \$1.30 to \$2 weekly for a family, but are usually lower. The average wage income of a rural family, estimated at that of 1.5 male adult workers plus \$50 per year supplemental for women and children, is \$250 to \$275 cash income per year.⁶ Food is said to be as high as on the mainland. The rural worker, however, has generally no

⁵ Ibid.

⁶ Rosario, José C. Op. cit.

rent to pay and is often furnished one meal a day by his employer. Only a minority of the rural working class families have gardens or raise food for themselves or upon shares, due to the land situation to which reference has been made.

Rural homes are, generally speaking, thatched huts, board cabins, usually with galvanized iron roofs, or long-row tenements of



One of the many undernourished children the school lunches are designed to put on the way to health.

frame construction. The palm huts which one sees frequently in the remote areas are said to perpetuate the type of Indian dwelling that the Spaniards found in the Island. Many of the dwellings in the rural areas are raised on poles, partly to keep them off the ground and partly to give them an even foundation, since the rural part of the country is broken by deep gulches and steep mountain sides into a series of isolated localities. There are also many examples of newer, better-constructed, and occasionally painted laborers' houses, and many attractive homes among the more prosperous.

Among the workers one or two room houses are more common than larger ones. Furniture and cooking utensils are primitive

and often home-made. A study of 4,263 rural dwellings made in 1929 found that 47 percent contained 2 rooms and housed 7 persons.⁷

There is practically no rural social organization, which, added to the lack of permanent homes and insufficient incomes for proper nourishment, accounts for the unsatisfactory situation of farm workers.

Town workers are generally better paid, better housed, and have opportunity for more varied types of employment than rural workers. They are employed as bakers, barbers, in building and other mechanical trades, as longshoremen, printers, cigarmakers or in other phases of the tobacco industry, and the like. Families of skilled workers live in suburban frame cottages or in more congested apartments in mid-city tenements. Casual laborers and other unskilled workers with irregular employment usually occupy small, poor hovels which they themselves build of picked-up materials often placed on crowded and insanitary sites.

Clerical, semiprofessional and professional men, merchants, government employees, and others higher in the economic scale, live much as similarly employed persons on the mainland live. As a rule they have substantial and attractive bungalows equipped with modern conveniences. Such homes are often more roomy and pleasant than houses costing the same amount on the mainland as they do not require cellars and heating plants.

There are also, making up the largest part of the larger towns and cities, handsome homes built during the Spanish regime or, if built later, similar in architectural design, occupied by the more prosperous classes. In some cases these charming old houses have been made over into "apartment houses" or in other ways adapted to accommodate more than one family. These buildings add interest and beauty to many an old town or city in Puerto Rico.

The most important products of Puerto Rico are sugar, tobacco, coffee, and citrous fruits—named in about the order of their importance. The coastal plain is almost entirely devoted to sugarcane growing, with occasional coconut groves and citrous fruit orchards. On the hillsides and in mountain sections, coffee, tobacco, pineapples, bananas, plantains, and miscellaneous farm crops are

⁷ Clark and associates. Op. cit.

grown. Considerable effort has been made in recent years to increase the Island's exports and to create and enlarge markets on the mainland, especially those centered in or about New York. Markets for Puerto Rican embroidered goods—cotton, linen, and silk—hats and other handicrafts have been and are being developed, as well as for fruits, including canned fruits. The women are espe-



A typical farm conveyance of the Puerto Rican sugar plantations.

cially skillful in doing fine embroidery, drawn work, and varied types of needlework—skills which have been cultivated since early Spanish colonization. Fruits, citrous fruits in particular, of a fine quality and flavor are grown very successfully.

Public health and economic conditions are vitally related in Puerto Rico as elsewhere. The prevalence and effects of malnutrition and disease due in large part to insanitary conditions and low standards of living which accompany the critical economic situation offer the Island one of its most serious problems. Infant and tuberculosis mortality—considered as sensitive indices of economic conditions—are both excessive. Intestinal-disorders, tuberculosis, malaria, and uncinariasis are the principal causes of the high death rate. Remedial measures have been in effect since the American occupation and have been practiced with renewed

vigor within the past few years. The American Child Health Association made an exhaustive study of conditions and conducted an emergency health campaign in 1931. The United States Public Health Service and the Rockefeller Institute are other organizations which have cooperated with the insular government in efforts to improve health conditions. The School of Tropical Medicine which is maintained in cooperation with Columbia University is a significant clinical and research center. The insular appropriations for health are next in importance to those for education and public works.

At the present time the health and education departments are cooperating in promoting more effective use of the schools as an agency for both health and economic improvement, especially in rural Puerto Rico.

How the Island is Governed

From 1900 to 1917 Puerto Rico operated under the Foraker Act, a law designed to protect the people from disastrous mistakes and at the same time prepare them for self-government. In 1917 the Jones Act—the present organic act under which the Island is governed—became effective. According to the terms of the act, the Island has a distinctive political status. Puerto Ricans are citizens of the United States with practically the same rights as citizens of a territory. The people do not vote for president and vice president, nor do they have voting representation in Congress. They do have a resident commissioner in Washington whom they elect. He receives the salary and has certain privileges of a member of the House of Representatives. Both prohibition and suffrage for women were adopted in Puerto Rico after approval by popular election.

Federal control over the Island is exercised in three ways: First, through Congress which may enact general laws applicable to Puerto Rico as to other sections of the country or special ones applicable to Puerto Rico only. Congress may also repeal laws adopted by the legislature of Puerto Rico. Second, through the President who, under the authority of Congress, appoints with the confirmation of the Senate, the governor, the attorney general, and the commissioner of education. He appoints the auditor, the chief justice, and associate justices of the supreme court without

Senate confirmation. In addition he can determine through his appointee, the governor, and subject to the advice and consent of the Senate of Puerto Rico, the selection of the heads of three of the remaining executive departments and certain other insular officials. He has certain veto powers concerning enactments of the insular legislature and controls appointments of Federal offi-



The statue of Columbus in city square at Mayaguez.

ciala stationed in Puerto Rico as he does those on the mainland. Third, through the courts. The Island constitutes a judicial district of the United States where cases involving more than \$3,000 between citizens of Puerto Rico and any State or foreign country, including most of those in which large property interests are at stake, must be heard before a Federal judge. This judge has so far always been a continental American.

The Federal Government's relations with Puerto Rico are not only supervisory and inhibitory; they include many of the usual services found on the mainland. Receipts from customs go into the insular treasury and no taxes for the support of the national government are collected in Puerto Rico nor upon Puerto Rican trade or income. The United States also gives regular if not large financial assistance. The Bureau of Insular

Affairs of the War Department has the duty of following the affairs of Puerto Rico for the President.⁸

The Island is governed locally through the Governor's office, nine major administrative divisions, and the insular legislature. The legislature consists of two houses whose members are elected by the people and which hold annual sessions and have the usual powers of such bodies subject to the provisions of the organic act. The major divisions are: Justice, in charge of an attorney general; education, in charge of a commissioner of education; auditor's office, in charge of an auditor; finance, in charge of a treasurer; interior, in charge of a commissioner of interior; health, in charge of a commissioner of health; a department of agriculture and commerce, and a department of labor, each in charge of a commissioner; the executive secretary's office; and the police department—the last-named is not mentioned in the organic act.⁸

Local government is carried on through municipalities corresponding somewhat to counties and townships on the mainland. There are 77 municipalities. Generally a municipality contains rural areas tributary to a single population center of small or moderate size. Their exact form of government is determined by general statute. There are three classes of municipalities. The first class includes those having a population of 30,000 or more and an assessed valuation of \$10,000,000 or more. There are five such municipalities and they include the five cities each of more than 10,000 population. The second class of municipalities includes those having a population of 5,000 to 30,000 and an assessed valuation of 3 to 10 million dollars. There are 23. All of the other 49 are of the third class. New municipalities may be created by an act of the legislature on petition of at least 25 percent of the voters of the division or ward concerned. Each municipality is a body politic with officers elected by its people. Municipalities are divided into minor civil divisions called barrios, which have no form of government distinct from that of the municipality. In most of the smaller municipalities there are two or more barrios.

⁸ Clark and associates. Op. cit., ch. V. Transferred to Department of the Interior May 29, 1934.

Officers of the larger municipalities are a municipal assembly of 11 members, a mayor and board of administration, a school director, a director of public works, a director of charities, a municipal treasurer, a municipal auditor, a secretary, and a justice of the peace. In smaller municipalities combinations are usually effected. Functions of the municipal officials are limited, especially those concerned with schools, health, sanitation, and public works, because of the rather broad functions of the insular government.



The chapel in the wall at San Juan.



CHAPTER TWO



The Schools

IMMEDIATELY following the American occupation of Puerto Rico, schools were established. The ideals underlying the system of public education embodied those prevalent in the United States, particularly that of free universal education. Schools in organization, curriculum, and practice were patterned after those on the mainland. This does not mean that universal free public education has been realized in Puerto Rico, but admittedly remarkable progress toward its attainment has been made. The Commissioner of Education, Dr. José Padín, in a recent address stated, "Our people have felt instinctively that the way out of their difficulties is through education and they have been ready at all times during the past 30 years to make great sacrifices to maintain a good system of schools."

The International Institute of Teachers College, Columbia University, surveying the schools in 1925,¹ speaks of the achievement at that time as follows:

Out of their slender resources [one-sixth of the per capita wealth of continental United States] the people of Puerto Rico have built this monumental establishment from the ground up. They have erected the schools and have paid for them. They have created agencies for professional preparation and have trained hundreds of their best young men and women as teachers. They have developed an intricate administrative organization and have manned it chiefly with their own citizens. And all this has happened within the short space of 25 years. The accomplishment has been possible only because the people of Puerto Rico have been willing to spend an unprecedented proportion of their annual revenues for this purpose. * * * the history of education in continental United States shows no parallel achievement.

Since 1925 additional and significant progress has been made. The insular department of education has been reorganized with a

¹ Survey of the educational system of Puerto Rico. International Institute of Teachers College. New York, Teachers College, Columbia University, 1925.

view to economy and efficiency, standards have been materially raised in the administrative, supervisory, and teaching staffs and for school achievement; the problem of increasing school offerings is being attacked, reorganizations have been effected in line with progressive ideas in education and a very definite effort more nearly to realize the social and economic objectives of the educational system has been made.

The Administrative Organization

INSULAR Organization ★ The school system of Puerto Rico is highly centralized both in administrative organization and in support. General control is centered in an insular department of education with a commissioner of education who is appointed by the President of the United States at its head.

There are two main divisions of the department: The division of administration and the technical division. The latter is responsible for services pertaining to instruction, the former for those pertaining to business and administration both within the department and of the educational functions of the Island. Diagram I, page 24, shows the organization of the central office, gives titles of bureau and staff officials, and by implication gives a general idea of the functions undertaken or supervised by the department of education and their distribution within the central organization.

It is apparent that the administrative organization of the Island school system does not correspond exactly in form or functions either to State or to city organizations on the mainland. The functions are more centralized than those of the average State organization. While there is some resemblance to the average city organization, the department is not responsible to a board of education as is a city or town superintendent. County superintendents in county unit organizations or township superintendents are also generally responsible to civil or educational boards.

Locally schools are in charge of a superintendent selected, appointed, and placed by the Commissioner of Education. He is empowered to appoint a superintendent of schools for each municipality. In practice two or more municipalities are combined under one superintendent. At the time of writing this

manuscript there are 45 district superintendents of schools in charge of 77 municipalities as follows: 15 districts contain one municipality each, 28 two, and 2 three municipalities each. The districts range in size from small rural sections with approximately 40 teachers, to the capital city of San Juan with 380 teachers. The district superintendent's functions are somewhat similar to the functions of a superintendent on the mainland except that they are delegated duties—delegated from the central office where policies are initiated. The superintendent administers and supervises the schools of his district following policies and regulations of the Commissioner of Education rather than of a local board or as an independent administrative officer responsible to the local community only. There is a school director for each district appointed by the mayor, who acts as business manager for the school system.

School Support

The most serious educational problem in Puerto Rico is that of financing educational facilities—even elementary education facilities—for all of the children. The large population and the existing social and economic situation are apparently such serious obstacles to extending educational facilities that the Commissioner of Education in his annual report for 1931 states that “the problem is impossible of solution under the present social and economic order. * * * The hope seems to lie rather in a redirection of present efforts toward goals of greater efficiency and practical utility.”

The people of Puerto Rico are appropriating (1931) approximately one third of their total governmental revenues to the support of their schools. Yet in spite of this relatively generous provision, particularly in view of the economic level of the islanders, only about 40 percent of their children are in school—a fact due not to lack of appreciation of education but to inability to finance an adequate school program.

The public schools are supported almost wholly from insular funds appropriated by the legislature from moneys collected for all governmental purposes. There is no regular insular school

tax as such. Municipalities assume a small share of the total expenditures, collecting this share from a municipal property tax.

In this policy of centralized school support and utilization of varied sources from which to draw funds other than property taxation Puerto Rico has been wiser than many of the States on the mainland. The plan helps to reduce the extreme inequalities which would exist in school facilities provided in different parts

Table 1 ★ Classification of Expenditures¹

Expenditures	Insular	Municipal	Total	Percent of total
General control	\$119,021.26	\$148,485.80	\$267,507.06	4.82
Instructional service	3,989,318.17	206,258.29	4,195,576.46	75.53
Operation of plant		324,160.08	324,160.08	5.84
For maintenance of school plant	1,650.00	155,806.59	157,456.59	2.84
Auxiliary agencies	91,009.18	215,820.68	306,829.86	5.52
Fixed charges	10,198.21	26,867.61	37,065.82	.67
Capital outlay	25,767.43	90,015.36	115,782.79	2.08
Debt service		150,165.30	150,165.30	2.70
Total	4,236,964.25	1,317,579.71	5,554,543.96	100

¹ Annual Report of the Commissioner of Education, Fiscal Year 1930-31. San Juan, P.R. Department of Education, p. 105.

of the Island if the burden of support were borne wholly by local units. However, owing to prevailing regulations governing moneys raised by municipalities for school expenses, full realization of the potential benefit of centralized support has not been attained.

The school laws and the insular appropriation acts define the purposes for which insular and municipal revenues allotted to schools may be used. Under provisions of the school laws, the municipalities are expected to provide buildings, furniture, supplies, and building maintenance, and building janitor service.

Teachers' salaries are paid by the insular government. Municipalities, however, may and do employ extra teachers with the approval of the Commissioner of Education and pay extra salaries to others. At various times, too, the insular government has appropriated money to erect buildings, and insular appropriations regularly provide small sums for school supplies, textbooks, equipment, minor repairs, travel, laboratories, and libraries. The local superintendents are paid from insular funds. Their travel expenses are paid by the municipalities served—a flat rate of \$1 per month per teacher is set aside for this purpose. Travel expense scales are prepared by the Commissioner of Education.

Approximately 96 percent of teachers' salaries are paid by the insular government and approximately 35 percent of other school expenses come from the same source. The responsibility for public-school expenditures, exclusive of capital outlay and debt service assumed by insular and municipal sources for 1927-28—a reasonably typical year—were as follows: ²

Expenditures	Insular	Municipal	Total
Teachers' salaries	\$3,755,000	\$166,000	\$3,921,000
Other expenses	338,000	757,000	1,095,000

While the system of division of costs permits the government to assist poor municipalities, the amount, as indicated below, is insufficient to equalize school opportunities. A comparison of pupil expenditures in 7 municipalities of the highest and lowest valuations respectively shows these inequalities:

	Wealthy	Poor
Expense per pupil enrolled	\$30.94	\$18.00
Expense per child 8 to 14 enrolled	\$31.67	\$14.32
Percent of population 8 to 14 enrolled in school . .	102	80

² Clark and associates. Op. cit.

The discrepancy shown is due to the fact that the rich municipalities paid salaries from their own local funds. The poor municipalities, with one exception, did not. The per capita wealth of the rich municipalities included varied from 5 to 13 times that of the poor ones. It is apparent, as this fact and the set of figures quoted above indicate, that while efforts and progress are being made toward equalization of school opportunities, achievement in this direction is as yet inadequate.

For the school year 1930-31 the total expenditures for schools were \$5,554,554. Classification of total expenditures and per capita expenditures are shown in tables 1 and 2 pages 18 and 21.

School Organization

There are two rather distinct types of school organization in Puerto Rico, one of which prevails in urban centers and the other in what are called the rural zones.

THE Urban Schools ★ In Puerto Rico as on the mainland, school facilities on the whole are somewhat better both qualitatively and quantitatively in urban than in rural communities. A higher percentage of the total number of children are in school and remain longer; high-school facilities are available in most urban communities, and teachers' salaries and qualifications are somewhat higher. Classrooms are, however, crowded and double sessions prevail in the first two grades in urban as in rural communities. There are approximately 90,000 children enrolled and 1,900 teachers employed in the elementary urban schools.

Urban schools are organized on the traditional 8-4 plan except in one city in which the 6-3-3 plan is being tried out experimentally. Buildings are generally attractive and well kept, classroom work carefully supervised, and teaching methods generally modern, resembling rather closely those in school systems on the mainland. Until recently the traditional academic subjects received the largest share of time and effort in both elementary and secondary grades and formal, traditional methods of grading, promotion, etc., prevailed. Considerable redirection is now under way, directed by professional supervisors as described elsewhere in this bulletin. Examples of this are found in the practice,

now rather generally followed, of grouping children according to intelligence scores, of basing promotion on ability to work in advanced grades rather than on the time spent in school, and in the emphasis placed on health, music, social studies, etc. This emphasis is indicated in the time allotted to these newer subjects as shown in table 3 on page 23.

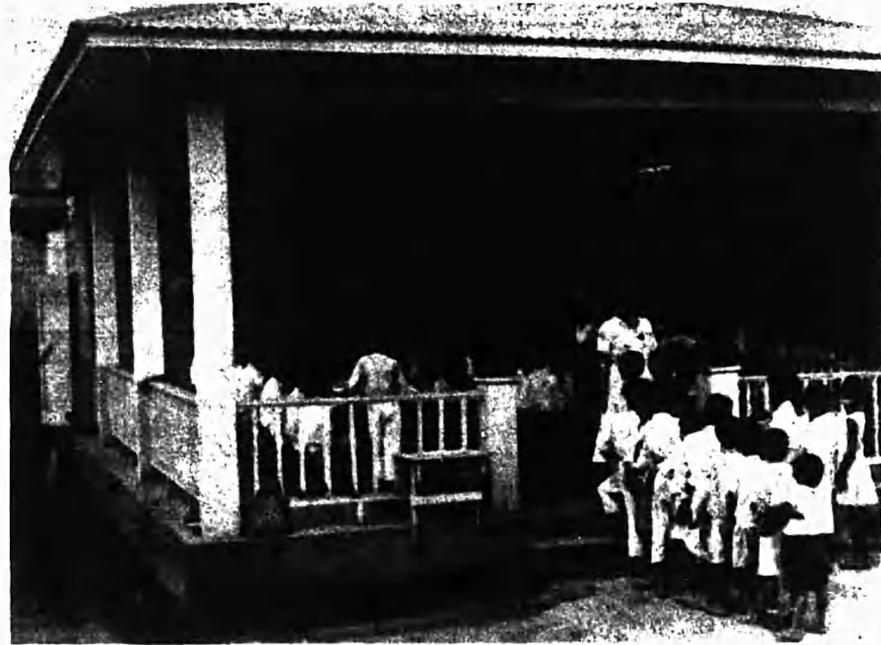
Table 2 ★ Per Capita Expenditure ¹

Based on—	Insular	Municipal	Total
A . SECONDARY SCHOOLS			
Enrollment.....	\$46.01	\$5.83	\$51.85
Average number belonging.....	54.27	6.88	61.16
Average attendance.....	54.69	6.93	61.62
B . ELEMENTARY SCHOOLS			
Enrollment.....	17.21	2.66	19.87
Average number belonging.....	18.67	2.88	21.56
Average attendance.....	19.59	3.02	22.61
C . TOTAL EXPENDITURES			
Enrollment.....	18.73	5.82	24.55
Average number belonging.....	20.37	6.33	26.70
Average attendance.....	21.34	6.64	27.98

¹ Annual Report of the Commissioner of Education, Fiscal Year 1930-31. San Juan, P.R., Department of Education, p. 107.

The elementary school curriculum includes the subjects commonly taught on the mainland but differs basically in the provision that both Spanish and English are included as subjects in which proficiency is to be reached by all children. Puerto Rico is apparently definitely committed to a bilingual policy. Spanish is the language of instruction up to and including the fourth grade. All subjects are taught in that language, and English is taught as a

special subject. In the fifth grade both are used with the objective of making English the language of instruction for the curriculum content. After the fifth year Spanish becomes a special subject and English the language of instruction. This statement refers to practice commonly followed. Experimentation concerned with the grade in which English as the basic subject can be most effectively introduced is under way in some schools.



*The noon hour in a Puerto Rican school
lunch room.*

The subjects and the grades in which they are taught, with time allotments, are shown in table 3 on page 23. Health education is combined with physical training in the first grade on double-enrollment plan and in the seventh and eighth grades. Nature study is combined with civic training in the first grade on double-enrollment plan. History and civics are combined in the fifth and sixth grades.

There are 23 public 4-year high schools under the Department of Education in as many districts in the insular system. Up to 1932 there were also 23 continuation schools, which are schools of

Table 3 ★ Time allotment by subjects and grades in the elementary schools ¹

Subject	Minutes daily by grade							
	1	2	3	4	5	6	7	8
Spanish.....	50	100	80	50	50	50	50	50
English.....	40	80	80	50	50	50	60	60
Arithmetic.....	20	40	40	40	50	50	50	50
History.....				20	30	35	40	40
Geography.....				40	40	40	40	20
Physical training.....	20	20	20	20	20	20	20	20
Nature study and drawing...			25	20	20			
Civic training.....	15	15	15	20			20	20
Music or writing.....		25	20	20	20	15		
Health education.....		20	20	20	20	20		
Recess.....	15	15	15	15	15	15		
Manual training or agriculture and home economics or needlework.....							70	90
Total time.....	160	315	315	315	315	315	350	350

¹ Annual Report of the Commissioner of Education, Fiscal Year 1930-31. San Juan, P.R., Department of Education, p. 44.

secondary grade offering 1-, 2-, or 3-year courses. These have been reduced in number to 3, looking toward eventual elimination. The enrollment in the public secondary urban schools in 1931 was approximately 7,000. The high schools employ 184 teachers and 23 principals. Beginning teachers are required to have a Bachelor of Arts degree and 21 hours in education.

The secondary schools, like the elementary schools, are undergoing fundamental changes from the former rather general following of traditional academic courses and formal organization and

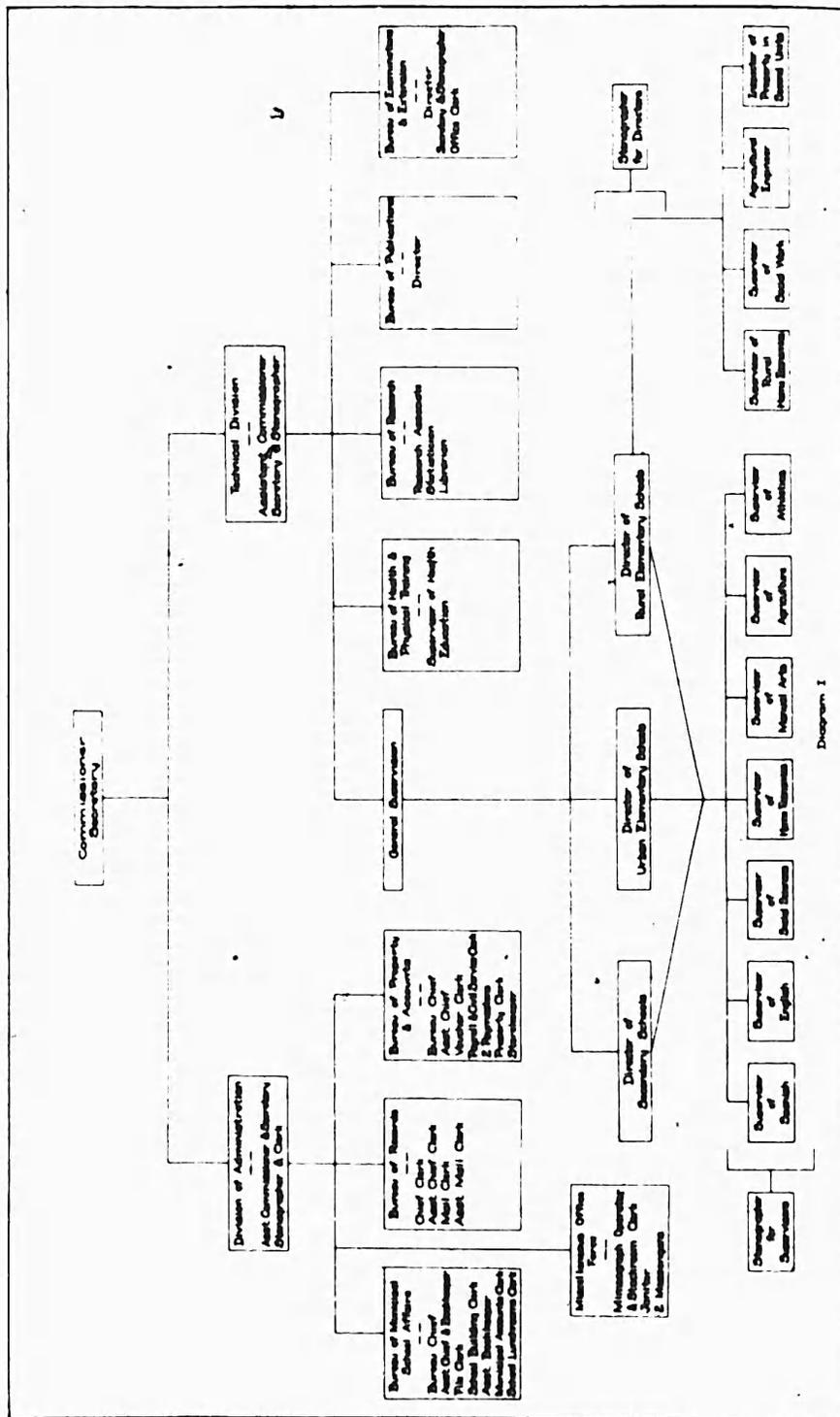
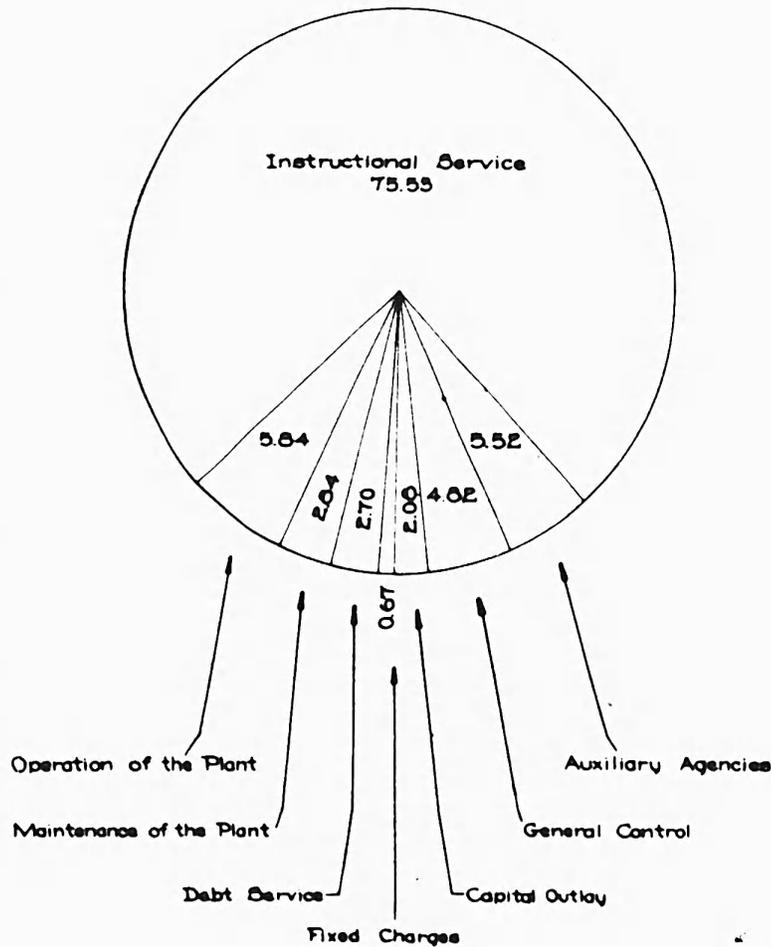


Diagram 1

Diagram II

HOW THE SCHOOL DOLLAR WAS SPENT



methods. The curricular offerings are being enriched and recently the advantages in vocational education extended to schools on the mainland through the United States Office of Education have been extended to Puerto Rico. The high schools now offer three different curricula, general or scientific, commercial, and vocational. Organization and subject offerings are similar to those prevailing in urban secondary schools on the mainland. ♦



Puerto Rican rural school boys with their hurricane-ruined school building in the background.

THE Rural Schools ★ The school organization in the rural zones provides for two units known as first and second units. The rural first-unit organization is planned for the first 6 years or grades and leads to the second unit, offering 3 years of work. In actual practice first units do not, in all cases, offer all 6 years or grades since the system is in process of development.

The aim of the first-unit schools is to provide rural children with the traditional equipment of a primary education fitting them for entrance into the second-unit schools or for further academic work in traditionally organized schools. They have no vocational ob-

jectives but offer "incidental" or "appreciative" courses in garden and hand work.

There are not enough school buildings nor teachers to accommodate all of the children. Three different types of organization are therefore set up in the first-unit schools in an effort to accommodate as many children as possible. The particular one followed depends on local conditions and needs:

1. *Single session plan.* The single session plan provides for a full school day for all children with a morning session from 8:30 to 11:30 and an afternoon session from 1 to 4 o'clock.

2. *Double session plan.* The double session plan contemplates a two-group organization; one group, generally made up of pupils in the first grade, attends mornings from 9 to 12. A second group, generally made up of pupils in the second and third grades, attends during the afternoon session from 1 to 4.

3. *Mixed plan.* The third or mixed plan is so arranged that the first three grades attend one-half day and the fourth, fifth, and sixth grades attend during the whole day. Children from neighboring small schools, in which three grades only are taught, may come to centers organized on the mixed plan to attend the upper (fourth, fifth, and sixth) grades. There are generally two teachers in these schools.

The first-unit schools are taught by slightly more than 2,000 teachers. This type of rural school organization exists in almost all the "barrios" of Puerto Rico and until the second-unit schools were established in 1928-29 offered the only type of educational opportunity available to rural children.

The subjects taught include oral English, Spanish, reading, writing, arithmetic, health education, civic training, geography, history of Puerto Rico, agriculture and nature study, and industrial work.

SECOND Unit Rural Schools ★ In the Puerto Rican second-unit school there is now under way one of the most interesting experiments in rural education in progress anywhere in the United States. Concerning educational conditions which led to the initiation of the project and its purposes, the Commissioner of Education, Dr. José Padín, in an address delivered before the Caribbean

Seminar in 1931, explained:

Since I took office about a year ago I have devoted most of my time to the promotion of rural education. Our peasants constitute about 80 percent of the population. For hundreds of years they have lived scattered over the mountainsides, neglected, forgotten, out of touch and out of step with the rest of the Island

• • • The future of Puerto Rico depends appreciably on our ability to bridge the gap that separates the retarded mountaineer from his more fortunate brothers.



Children from the university practice school.

The conventional one-room school was not doing much in the direction indicated. Of every 100 pupils enrolling in the first grade, 84 dropped out before reaching the fourth grade. "This was due to economic pressure which academic instruction did not relieve."

The remedy now provided is the second-unit school. The second units are consolidated schools of a vocational type. They enroll children above the third grade and offer in addition to the usual academic subjects, agriculture, home economics, and trades. Several varieties of trades are offered, differing among schools.

The purposes of the second-unit schools as stated in an official report of the Department of Education are:³ To elevate the standard of living in the rural communities, to increase the productive capacity of the Island, to put into operation a program of social and sanitary betterment, such program to take into account the most urgent needs of those people living in the rural sections, and to organize and put into operation a program of vocational education.

The first second-unit schools were established in 1928 and 1929 when 5 consolidated school centers were used to initiate what was then considered an experiment. They have grown in number and into the confidence of the people. There are now 39 second units. The Commissioner of Education states that 100 are needed. If money were available and the requests of the people could be satisfied the remaining 61 would doubtless even now be thriving realities. The schools cost between \$8,000 and \$10,000 per year per school.⁴

The curriculum of the second units—still in an experimental stage—is formulated to contribute directly to the above-indicated objectives which, summarized, mean better standards of living especially those concerned with home conditions, health and sanitation, and an improved economic status. Approximately half the day is devoted to academic subjects and half to vocational work. Considerable thought is given to placement of pupils in courses offering the type of work to which they are adapted by interest, aptitude, or physical condition.

The academic work includes the usual offerings, the three R's, English and Spanish, history, geography, citizenship, nature study, and physical education. Vocational courses for boys include agriculture, tin work, carpentry, shoe repairing, electricity, auto mechanics, and other trades or industries which local needs and practices indicate should be developed. For girls, vocational courses include embroidery and other types of needlework, lace-

³ Vizcarrondo, Francisco. *The second-unit rural schools of Porto Rico: Pre-vocational schools for pupils of intermediate grades.* San Juan, P.R., Department of Education, 1930.

⁴ Padín, José. *The new educational program.* San Juan, P.R., Department of Education. (Bulletin of Information No. 3.)

making, cooking, and other home-making subjects. Manual and industrial work and native industries of some type are offered for both boys and girls.

Agriculture for boys and home economics for girls are required subjects. This is because most rural people live on farms. "What our country boys need especially", states a recent Department of Education report, "is to learn how to make a small farm produce for the needs of the family and something extra for saving." Similarly it is believed that girls—the future homemakers—should have practical training which will fit them for more intelligent homekeeping with the limited resources probably available when they become homemakers in rural communities.

In agriculture, truck farming is the chief activity, though many schools aim to teach large-scale farming as preparatory for the higher places on sugar, coffee, and fruit plantations. The children are encouraged to cultivate home gardens of which there are now (1932) more than 1,500.

At each school there is a plot of ground of at least 5 acres for practical work in agriculture. The land is devoted to [1] planting the most important crop of the community, [2] a vegetable garden, [3] a minor crop, and [4] at least 1 acre to the cultivation of fibrous plants for use in the industrial work of the school. Pupils working in any agricultural project are given one-third of the net proceeds of the crop if sold or suitable to distribution. The school farm or garden supplies the school lunchroom with vegetables and meats for the table. Work in animal husbandry comprises pig, chicken, goat, and cattle raising. It is helping to increase and improve the breeds of domestic animals and to solve the problem of sufficient meat for a balanced diet. Poultry, rabbits, hogs, and goats are raised through the boys' clubs. The members of such clubs may share either in the increase or profits from sales. In the former case, the result is better-bred stock for the home projects.

The work in agriculture is in charge of the special teacher of agriculture whose duty it is to develop a program suited to the community in which the school is located. Farm accounting and marketing, building of standard poultry houses, rabbit

pens, hog houses, etc., are taught in each unit. Standard breeds of stock such as Hampshire and Red Duroc hogs, Rhode Island Red and White Leghorn poultry, White King and Swiss Mundane pigeons, Flemish Giant rabbits, and the like, are kept.



Fajardo—the standard type of one-room rural school.

Carpentry is taught in all schools. Around the school the boys build fences and animal houses, repair school buildings, and make tables, chairs, beds, and domestic articles of the kind which add comfort in the homes. Shoemaking is taught in a number of schools and fills a very practical need not only from a comfort but from a health standpoint since uncinariasis is a very prevalent disease.

For the girls both homemaking and industrial work are offered, the latter for commercial values. In home economics they are taught plain cooking and dressmaking. Thorough instruction concerning well-balanced diets based on what Puerto Rico produces is considered of utmost importance, and the schools

emphasize proper feeding both in regular courses and through the school lunch. Dressmaking courses, too, are designed to fill a practical need; the use of simple designs and materials and essential articles of wearing apparel are taught. The equipment is simple and insofar as possible resembles very closely that used in the homes—the charcoal stove, the use of the same room for cooking and sewing instruction (since many rural families live in one or two rooms), the simple home-made cupboards, cooking utensils made of the ever-present 5-gallon oil tins, are examples. "How can we help these children to improve even in a slight degree the homes from which they come?" is the question uppermost in the minds of those responsible for home economics in the second-unit schools.

The second-unit schools promote conditions and activities designed to make rural life more attractive than it now is for both adults and children, and to add interest and variety to recreation and to the use of leisure time. Some of these objectives are realized through parent-teacher associations, organized in connection with the school and meeting at the schoolhouse, through libraries, and through playgrounds which the people of the respective school communities are encouraged to use.

The second-unit schools very generally have small libraries, many of which are open evenings for reading and for consultation of parents and teachers in matters of mutual interest. Playgrounds have been constructed at many of the schools and equipped with benches and athletic and play apparatus made by the boys. Some are lighted at night and open to the grown-ups of the community.

Obviously the second-unit schools cannot attain the important objectives to which they aspire unless they become vital community centers around which the social and intellectual life of the people revolves. Toward the achievement of this end, social welfare work under the direction of a trained social worker, is an established activity in each of the second-unit schools. Community improvement is conceived as a cooperative project in which all of the teachers participate but emphasized especially in each school by the social worker—a liaison officer between

the home and the school, and the teachers of home economics, agriculture, and the industries. These teachers in particular, under the direction of the three special supervisors in the department of education assigned to the second-unit schools, coordinate their efforts to the ends of raising individual and community standards of living and of utilizing local resources to improve economic conditions

Among the duties of the social worker as stated in a recent publication of the Department of Education of Puerto Rico, are the following: ⁵ [1] To help make the schools attractive and valuable social centers; [2] to help improve social, moral, and sanitary conditions of neighboring homes; [3] to help improve and direct the work of the parents' associations; [4] to organize and direct athletic activities of the girls, and [5] of community health clubs.

Observation of the schools impresses one with the fact that social workers are particularly active in promoting the health program. They were observed assisting with the planning and serving of the school lunches, in charge of rest periods for undernourished and pretuberculous school children, cooperating with clinics and milk stations, infant feeding stations, and health units—activities functioning under certain medical authorities or philanthropic organizations. According to a recent unpublished report of the supervisor of social work in the Department of Education, the social workers not only follow up cases of illness of school children in their homes but discover such illnesses and assist in various emergencies including childbirth, accidents, and the like.

The social workers are under the immediate direction of a supervisor in the central office. She is responsible also for courses offered in the summer schools of the University of Puerto Rico in which active and prospective social workers can be trained for the specific type of work needed. In these courses plans are laid for projects, experiments, and special research studies to be carried on in the field during the school year.

⁵ The second-unit schools of Porto Rico. San Juan, P.R. Department of Education.

Another valuable activity of the second-unit schools is the agricultural extension work, carried on with the adults of the school communities. The agriculture teachers visit the farmers and they in turn visit the schools for advice and consultation. Conferences and meetings are held, home gardens are encouraged, and thousands of pure-bred animals and seedlings have been and are being distributed among pupils and farmers.

The products raised on school farms are usually sold on the local markets after needed donations have been made to the school lunchrooms. However, small quantities of the vegetables and pineapples raised were exported to the United States during the school year 1930. This practice offered practical instruction in classification of products, packing, shipping, and other activities involved in intelligent marketing.

The faculty of most second-unit schools includes the principal teacher, special teachers of agriculture, of manual arts, of home economics, teachers of the academic subjects, a social worker, and an instructor in a selected industry or industries. While new and experimental, these schools appear to have won the confidence of school officials generally, of the Commissioner of Education, and of the civil officers of the Island. The Commissioner of Education states that the cost of maintenance is "the principal difficulty in the way of rapid extension" of these schools. In 1931, there were 254 teachers in the second-unit schools, distributed as follows: Teachers of agriculture, 36; of home economics, 36; of manual training, 34; social workers, 31; industrial teachers, 17; teachers of academic subjects, 103.

Enrollment in each of the different types of schools described in this section and the totals for all schools are given in table 4.

Some Problems and Achievements of the School System

INADEQUATE School Facilities ★ Puerto Rico's most serious educational problem has already been indicated, that of financing schools and teachers in sufficient numbers to provide education for all of the children. In 1930-31 there were approximately 500,000 children of school age of whom 226,200 were in public

Table 4 * Enrollment by Color and Sex¹

Type of school	White	Colored	Total
High schools:			
Boys.....	2,513	468	2,981
Girls.....	2,339	503	2,842
Total.....	4,852	971	5,823
Continuation schools:			
Boys.....	476	63	539
Girls.....	532	56	588
Total.....	1,008	119	1,127
Elementary urban schools:			
Boys.....	37,824	9,097	46,921
Girls.....	34,318	8,502	42,820
Total.....	72,142	17,599	89,741
Elementary rural schools:			
Boys.....	58,488	10,033	68,521
Girls.....	47,326	8,301	55,627
Total.....	105,814	18,334	124,148
Second-unit rural schools:			
Boys.....	2,726	544	3,270
Girls.....	1,707	399	2,106
Total.....	4,433	943	5,376
All schools:			
Boys.....	102,027	20,205	122,232
Girls.....	86,222	17,761	103,983
Total.....	188,249	37,966	226,215

¹ Annual Report of the Commissioner of Education, Fiscal Year 1930-31. San Juan, P.R., Department of Education, p. 119.

schools. The average daily attendance was 198,500. About 7,000 additional children were enrolled in private schools. In Puerto Rico the legal school age is 5 to 18 years, and there is a compulsory school attendance law covering the ages from 8 to 14, inclusive. Neither are practical, nor can they be fully effective under prevailing conditions. Few children can be admitted at the age of 5 or 6. Accommodations for those who seek admission are quite inadequate, even beyond that age, since the number of schools and teachers has not increased in proportion to the school population. A compulsory attendance law when the demand for school opportunities far exceeds the supply is naturally of minor importance. The situation is far worse in rural than in urban communities and about 72 percent of the population is rural. When even children of parents who are anxious and willing to make sacrifices for the sake of an education cannot be accommodated, there is little incentive or possibility of school officials or others making any adequate effort to interest the isolated and less progressive families in school. A practical but unsatisfactory solution is found in the following arrangements: First, older children are given the preference as to school entrance when accommodations are inadequate; second, a double enrollment plan is in effect by which one teacher teaches two groups of children in the lower grades, the children attending half, rather than the full school day; third, rural schools seldom offer instruction beyond the fourth grade, thus concentrating on education in the early elementary school subjects rather than extending it to upper elementary or secondary grades. The double enrollment plan prevails throughout urban and rural schools in the first and second grades. In rural schools it must occasionally be extended into the third. There is the added difficulty of very large classes commonly found even in the first and second grades.

This lack of school facilities and the provisions indicated as partially remedial to an admittedly serious situation are particularly unsatisfactory in rural communities. Based on 1930 data the average daily attendance in rural schools was 10 percent of the total rural population; in urban communities, 20 percent. Approximately 93 percent of the total enrollment in rural schools is in the first four grades, as compared with 64 percent in urban schools.

The total enrollment by grades for the school year 1931 shows only a fraction of 1 percent of the enrollment in rural schools in the eighth grade and an infinitesimal number—only 30 children—in the ninth. No tenth, eleventh, or twelfth grade enrollment is reported.

Further light is thrown on this situation by the following table (Commissioner's report, 1931) showing the percentages of pupils enrolled in urban and rural schools that attend each of the elementary school grades:

Type of school	Grades							
	1	2	3	4	5	6	7	8
Rural...	38.64	24.82	19.89	9.63	4.46	1.71	0.53	0.31
Urban..	17.19	15.81	16.54	14.65	12.06	10.05	7.56	6.13

In the situation indicated the Department of Education in Puerto Rico recognizes a twofold problem: [1] Reorganization of the school curriculum in terms of material suited to actual needs and the probable school life of the pupils; and [2] extension of educational facilities through the higher grades in rural communities. An attack is being made in the two directions indicated through the second-unit schools described elsewhere in this report.

THE *Language Problem* ★ A difficult and ambitious undertaking of the Puerto Rican schools is the adoption of a bilingual plan of instruction. It is intended to insure both the conservation of Spanish, the mother language of the Puerto Ricans, and the acquisition of fluency in English, the language in which much of the business of the Island is conducted. More and more it is believed Puerto Ricans will find it necessary to have a good speaking knowledge of the language of the mainland. Difficult problems are involved in curriculum and methods of teaching. The advisability of the use of English as the medium of instruction above the fifth grade is a matter of much controversy especially

among teachers who must, of course, bear a large part of the burden of difficulties involved in teaching school subjects in a language which the majority of the children use only in school. Spanish is still the prevailing language in the homes and among friends, and many of the teachers have not yet acquired fluency in vocabulary and correctness in pronunciation. So far little directed scientific research on the problem has been conducted. Some experimentation, such as postponing the use of English for teaching arithmetic for another year or grade, has been carried on, but results are not yet conclusive. One finds teachers even in the higher grades resorting to Spanish when explanations of difficult or involved problems are necessary.

The effects of the plan now in operation on progress through school, on achievement in school subjects, and on the mastery of both Spanish and English reading and conversation are all subjects which can be solved best through controlled experimentation. There are reasons to believe that progress through school is retarded by the necessity of using two languages and some intelligent observers believe that limited vocabularies in both languages result. These questions are, however, complicated by the prevalence of late entrance, half-day sessions, and crowded schoolrooms. Until the language problems are segregated for further study, final conclusions seem unwarranted. In the meantime, the fact that children who complete even the sixth grade can converse in English at least creditably and that secondary school pupils appear to have attained considerable proficiency is an achievement in which the school system may well take considerable satisfaction while awaiting further light on the relative value of different procedures.

It is of interest in this connection that the technical staff of the Department of Education is devoting considerable time to educational research. Two important studies have recently been made under the direction of the Department; one a survey of secondary education in Puerto Rico, and the other a survey of the school system of the city of San Juan. The several specialists in the Department working through committees and with the Department of Education of the university are preparing curricular revisions involving modern methods and necessitating much

research and investigation. There are hopeful signs that many teaching problems peculiar to the Puerto Rican situation will finally find a solution through scientific research.

SCHOOL Lunches ★ The preparation and serving of school lunches is one of the important activities of the school system. Breakfasts or luncheons—in some cases both—were furnished to nearly 45,000 children during the school year 1930-31. Nearly 1,000 lunchrooms functioned on 184 school days. The average expenditure for each meal was slightly over 3 cents, the total expenditure, \$280,000. The money came from contributions and from insular funds. More than 800 parent-teacher associations cooperated in the work.

The school luncheons are, of course, primarily relief measures. The drastic effects of the hurricane of 1928 had scarcely been remedied when it was followed by other equally serious storms. In the winter of 1932-33 the schools were struggling with relief work both in serving food and in making garments for distribution by the Red Cross to alleviate suffering caused by the hurricane which swept a large part of the Island in the late summer of 1932. In view of the serious condition of a high percentage of the population, relief is a paramount consideration, and for many of the relief activities the schools were the logical centers. Moreover, children cannot come to school and remain there if hungry and without at least the minimum amount of clothing.

However, the schools, under direction of the Department of Education, have made the school lunch function as an educational, health, and social agency rather than merely an instrument to feed hungry and needy children. Cleanliness, health habits, the courtesies of the table are taught, and emphasis is placed on the desirability of a varied diet and on the cultivation of a taste for vegetables, such vegetables as are grown in school gardens and therefore can be grown in home gardens, in particular.

The preparation of menus, the installment and upkeep of equipment for cooking and serving, and other regulations are directed and supervised by the supervisor of home economics and health from the central office in the Department of Education. A special booklet for teachers, *Manual del Comedor Escolar*,

published by the Department of Education gives detailed suggestions for menus, kitchen and table equipment, etc., in the second-unit schools. While arrangements differ among schools, the general practice is to erect a small kitchen and a dining pavilion as part of the school plant. The kitchen is equipped with a home-built charcoal stove usually having two or three holes. Cooking utensils are simple, probably a 5-gallon oil tin and a few large cooking pots. One sees the oil tins used for boiling water—practically all schools boil the water they use—for cooking soup, rice, and other foods served. A cook is usually employed from one of the families of the community who prepares the food. Often the pupils, both boys and girls, help in its preparation, but care is taken to avoid exploiting children in work which has no educational value when extended over a long period.

The lunchroom is usually an open pavilion with built-in tables, probably made by the class in carpentry or manual training, with benches on which children can be seated on both sides of the tables. The children serve the food and generally there are two or more relays of diners to be served. In general, children pay for the meals either in money, a penny a meal, or in service or food products. Nourishing soups made of meats and vegetables, with bread and fruit; rice and beans—the staple diet of the Island—with bread and fruit and sometimes a “dulce”, that is, one of the sweets which the Puerto Ricans use as dessert, were menus most commonly observed. Fruits, oranges, and bananas especially, were so plentiful and inexpensive in the season during which schools were visited that children often brought their own supply even from the poorest homes. Otherwise they were served as part of the luncheon.

THE Vocational Schools ★ There are two vocational or trade schools in Puerto Rico located in the two largest cities, San Juan and Ponce. They offer 2-year apprenticeship courses to which 8-year graduates and adults with adequate preparation are admitted. They are supported almost wholly from municipal funds of the respective cities. Music, art, embroidery, machine-shop work, printing, plumbing, wood work, mechanical drawing are among the offerings.

THE *Private Schools* ★ There are a number of private schools especially in the cities, many of them of excellent quality. The courses of study pursued in most of them follow rather closely courses in the public schools. Under certain conditions private schools are accredited by the Department of Education. Many offer elementary courses only, but others offer instruction from the kindergarten through high school. According to the Annual Report of the Commissioner of Education, "private schools are regularly inspected by officials of the department. The teachers serving them are generally persons duly licensed to teach in the public schools of the Island and they grant certificates and diplomas as do public schools. The number of pupils per room is smaller than in public schools, making individualized instruction possible. They represent a real help to the government, since they take care of 6,994 pupils." ⁶

THE *School Buildings* ★ Puerto Rican municipalities and in some cases the Insular Department have built many substantial and handsome school buildings. Especially in the larger towns, school buildings compare very favorably with those found in cities of similar size on the mainland. In rural districts the standard type of small building is perhaps most common though other types equally attractive are not infrequently provided. (See illustration, p. 31.)

The second-unit schools are built both of concrete and of lumber and much care is given to the upkeep of the buildings and grounds. In general, the observer is impressed with the attractiveness of the grounds and the good housekeeping which prevails in the buildings. This was apparently equally true whether buildings were of the better or of the less substantial type. Flowers and shrubs beautify the grounds even of the most unpretentious schools, and interiors were in general noticeably attractive and well kept.

Equipment and teaching materials, especially books—text, supplementary or reference books—are quite inadequately furnished. Supplying an adequate number of books in the poorer municipal-

⁶ Annual Report of the Commissioner of Education, fiscal year 1930-31. San Juan, P.R., Department of Education. p. 54.

ities offers a problem which the Department of Education has not yet satisfactorily solved. Plans are under way for providing inexpensive pamphlets and mimeographed material which it is hoped will offer a temporary remedy. The hurricane of 1932 destroyed



A representative second unit school plant at Aricibo.

a vast amount of school property and damaged or destroyed approximately one-third of the school buildings. Funds may not be available for some time to compensate for this loss. Books in both Spanish and English—especially textbooks and supplementary books are among the special needs of the rural schools.

OFFICIAL Educational Journal ★ The Department of Education issues an excellent official organ, *The Puerto Rico School Review*. It is a monthly which aims to interpret the work of the schools to parents, teachers, children, and the public in general. In addition it presents subject matter and methods for classroom use, discussion of current educational practice, the Commissioner's annual report in serial form, and general material of interest to classroom teachers and school officials.

SOME Extracurricular Activities ★ The Junior Red Cross functions in the schools, both elementary and secondary, through extra-

curricular activities. There were more than 1,000 clubs in 1930-31. They are active in various kinds of relief work, help with school lunchrooms, provide student loans and free dental service to poor children, and engage in other useful activities.

There are health clubs, agriculture clubs, community clubs, school bands, and other activities of the usual type which function in much the same way as similar activities on the mainland.

Supervision

The present plan of intensive professional supervision for all schools of the Island emanating from the central education department and under the immediate direction of the Assistant Commissioner and his staff is one of the recent notable achievements of the central administrative office. In organization, objectives, and techniques supervision in Puerto Rico has passed through a long process of development, a process which both in ideals and in their realization is still under way.

School supervision of the inspectional and general utility type was established immediately following the American occupation. The first supervisors were "recruited from the Army and although they were sometimes ex-soldiers, ex-teamsters, etc., their academic preparation was often good."⁷ Educational requirements were not set up until 1909 when supervisors were required to hold a principal's license issued by the Department of Education. The early supervisors were appointed, as are superintendents of today, by the Commissioner of Education. Their chief functions were to act in an inspectorial capacity following the then more or less prevalent conception of supervision even in more highly developed school systems, and to serve as teachers of English. In spite of drawbacks, they apparently rendered valuable service to the school system in its early development. There were 16 supervisors in 1899 who until 1901 were known as English supervisors. The title was changed to superintendent of schools, then to supervising principal, then to supervisor, and under the provisions of

⁷ Negron, J. F. Job analysis of the work of the district supervisor. San Juan, P.R., Department of Education, Bureau of Supplies, Printing, and Transportation, 1928. (Bulletin 23, whole no. 99.) 39 p.

the law of 1931, to superintendent. They are now known as superintendents, a title more appropriate to the duties for which they are responsible. The number increased from 16 in 1899 to 35 in 1908, to 41 in 1911, and to 45 in 1926, the present number.

As the schools increased in number and efficiency in accord with trends in continental United States, supervision changed correspondingly in ideals and functions. The supervisors became more and more concerned with local school interests and progress, gradually assuming administrative, supervisory, and business functions resembling more nearly those of city and district superintendents on the mainland. They continued, however, under the immediate direction of the central office from which policies and regulations emanated.

In 1925, a survey of the duties, qualifications, and salaries of the superintendents then in service was made,⁸ which contains indications that the staff at that time was growing professionally. Many of the supervisors had considerable educational experience and many had attended or were attending summer schools and were enrolled in extension courses at the University of Puerto Rico. The number of teachers per superintendent varied from 50 or fewer to more than 100; the salaries varied from \$1,584 to \$1,980 per year.

In 1930-31 a study of the qualifications of the whole education staff, teachers, principals, and superintendents, was made by the Department of Education. The study shows that the staff of superintendents as a whole had attained completion of full secondary education, and in addition approximately one half year of college training.

The duties of the superintendents reported in the study were many and varied. They include checking up books and supplies, acting as attendance officers, paying teachers, and performing other business functions, as well as functions concerned with classroom supervision of the modern type. Many of them acted as instructors in agriculture. They were responsible for preparation of many types of reports of a business and professional nature and were representatives of the Commissioner of Education in the particular locality in which they worked.

⁸ Ibid.

Since this study was made a fundamental reorganization and redirection of the supervisory program has been effected. The administration of the program, as indicated in the graph on page 25 showing the organization of the central office staff, is centered in the Assistant Commissioner of Education, who is in charge of the technical department and technical staff. The whole program is set up by and supervised from the central office. The Assistant Commissioner is assisted by 3 directors general, 1 of secondary, 1 of urban, and 1 of rural schools, responsible, respectively, for the types of schools indicated. They are assisted by a staff of special supervisors each responsible for one of the following subject-matter fields: English, Spanish, home economics, manual arts, agriculture, social science, health, and physical training. Three additional staff members assigned to the supervision of the second-unit schools are an agricultural engineer, a supervisor of home economics and lunch rooms, and a supervisor of social work.

The local supervisory staff is made up of district superintendents of whom there are 45 assigned to 77 municipalities, assistant superintendents of whom there are one to three in each of the larger districts, and supervising principals all of whom are full-time supervisory officials responsible for the supervisory program in their respective schools.

The particular type of assignment of duties of the assistant superintendents varies among districts. In some districts the assistant superintendent (usually in districts where there is but one) supervises the rural schools, while the superintendent assumes responsibility for the supervision of urban schools and for all administrative duties. In others the assistant is assigned to the supervision of the elementary schools of the district. In others, usually the larger districts, the superintendent gives most of his time to administration while the assistants carry on the supervision either as general supervisors assigned territorially or assigned, respectively, to primary, intermediate, or secondary grades.

Superintendents and assistant superintendents work through the principals just as the central department officials work through the superintendents. The line of assigned responsibility

is well defined from the central office to the local superintendent, to the assistant superintendents, to the principals, to the teachers.

Under the reorganization, standards in academic and professional qualifications have been raised for the whole staff, and an intensive in-service training program for superintendents and teachers established. College graduation, including professional training in administration and supervision, is required of entering superintendents, supervisors, and principals. For those in service, extension courses and summer schools under the direction of the University of Puerto Rico have been set up. They are attended by large numbers of the supervisory staff. In addition, many of the superintendents and supervisors as well as teachers, particularly those in higher positions, attend summer and regular courses in universities and colleges on the mainland. Through such provisions, and especially through direct professional supervision offered from the central office, the academic and professional qualifications of the staff, supervisory and instructional, are constantly being improved. In the realization of the in-service training program, the cooperation of the department of education of the University of Puerto Rico with the insular department of education is an important feature. The Commissioner of Education is ex officio a member of the directing board of the university, a situation quite conducive to complete and effective cooperation in the teacher-education program.

Supervision is carried on by the means and devices generally practiced in well-organized school systems on the mainland: General and group meetings, free use of circular letters, outlines of curricular adaptations and revisions, units of work suggestive for improved teaching methods, suggested practices in class organization, frequent visits of the supervisory staff followed by personal interviews, and similar procedures. A fact of no small importance in the program is that the Island, while densely populated, is relatively small in area and the supervisory staff comparatively adequate. Frequent visits to classrooms are therefore possible even on the part of the central office staff. Evidences of intensive and organized supervision are apparent throughout the schools.

The central staff sets up certain specific supervisory objectives for all districts and outlines with considerable definiteness means of achieving them. Each superintendent in turn sets up the local supervisory program in harmony with the larger one but directly applicable to local needs. He follows the practice of the central office in supplying mimeographed materials with detailed interpretations of curricular revisions, units of work, suggested reading, and other helps similar to and interpretive of those which are sent to him from the central office. Thus the centralized program with local adaptations and interpretations reaches from the office of the Commissioner of Education to every classroom.

The Teachers

When the public-school system was established under American sponsorship, the instructional staff was recruited in large part from the mainland. This was a temporary policy intended to last only until Puerto Ricans in sufficient numbers to man the schools could be adequately prepared to take over the work. At present practically all teachers are Puerto Ricans—only 178 of a total staff of 4,483 were from continental United States in 1928—the latest data available of this particular type. Many of these are teachers of English. In 1930-31, 4,523 teachers were employed in the publicly supported schools of all grades under the department of education. Of this number 1,246 were men and 3,277 women; 3,743 were white and 780 colored.⁹

In the same year the average annual salary of common-school teachers was approximately \$820, the term being 10-months. The salaries of high-school teachers the same year varied from \$1,000 to \$2,100, averaging for 207 high-school teachers approximately \$1,400.

The salary scale for elementary urban teachers fixes a minimum of \$700, with an increase of \$50 per year up to \$900. Teachers of English receive a fixed annual salary of \$1,125. The minimum for elementary rural teachers is \$600, with an annual increase

⁹ Annual report of the commissioner of education, fiscal year 1930-31. San Juan, P.R. Department of education.

of \$50 up to the maximum of \$700. In consolidated schools the maximum is \$900. Principals of elementary schools receive \$1,100; acting principals, \$1,000. High-school principals' annual salaries range from \$1,600 to \$2,700.

While the first teachers came largely from the mainland, preparations began early to prepare and place Puerto Rican teachers in both elementary and secondary schools as rapidly as such arrangements could be made. Adequate teacher-education facilities had to be established and maintained and gradually improving standards of qualifications for teachers, academic and professional, set up. Acceptable standards for entering teachers have now been adopted comparing favorably with those in good systems on the mainland. However, the staff as a whole has not yet attained to these standards. During the school year 1930-31, the Department of Education made a survey of the training of the teaching, supervisory, and administrative personnel. Data were secured showing the amount of academic and professional training of each member of the staff and results were tabulated in terms of a comparison of the actual amount of training with the standards set up by the Department, namely, 4 years of college work for the administrative and supervisory staff and the high-school teachers, and 2 years of standard college grade preparation for elementary teachers. Results show that the directing staff as a whole is practically 6 years below the standards indicated; high-school teachers more than 2 years below, and elementary teachers about 5 years below.

At present the task of bringing the staff up to standard is being vigorously attacked. Among accomplishments of special importance are the enactment of progressive legislation concerning the certification and placement of teachers; improved and increased provisions for in-service training through academic and professional extension courses; and centralized professional supervision. The last named of these provisions, i.e., supervision, is described elsewhere in this bulletin. A very brief account of the other two follows.

By legislative action in 1931 the examination method of issuing certificates was abolished, and authority to issue all types of certificates centered in the Commissioner of Education. Specific

academic qualifications, the minimum being 2 years of school work of standard college grade, are required for each certificate. The minimum professional requirements range from 15 to 21 semester-hours according to the type of certificate. Administrative and supervising certificates require both experience in and completion of courses in administration and supervision. Either practice teaching or experience is required for any certificate.



Graduating class of San Sebastian second unit school.

Sixteen different types of teaching certificates are issued. They include: Elementary and secondary teaching certificates; elementary and secondary school principals' certificates; school superintendents' certificates; two types, junior and senior teacher certificates, in each, agriculture, manual arts, and home economics; certificates to teach English, commercial, and other special subjects; provisional and life certificates.

An important feature of the new law places assignment of teachers wholly in the hands of the Commissioner of Education supplanting joint jurisdiction of the school director and the local superintendent. In practice the placement of teachers will in the future be in the hands of the local superintendent, authority being delegated to him by the Commissioner of Education.¹⁰ The law

¹⁰ Ibid., p. 24.

- also eliminates any distinction so far as required qualifications are concerned between urban and rural teachers.

IN-SERVICE *Training* ★ The problem of raising the standards of teachers in service, many of whom were recruited through the years when the system was developing and opportunities for training not readily available, is being attacked by the Department of Education in several ways. Three of these seem of special importance: [1] There is a Bureau of Examinations and Extension in the Department established in 1923 which centers much of its attention on offering subcollegiate courses for teachers who have not completed high school and are not, therefore, eligible to certain credit courses offered by institutions of higher learning. This bureau conducts a correspondence school, evening extension courses in several towns throughout the Island, and special summer schools for teachers. In 1931, more than a thousand teachers availed themselves of the opportunities offered by this bureau. [2] The University of Puerto Rico conducts a summer session for teachers who have completed high school or have additional training. In 1930, 411 teachers and supervisory officials availed themselves of this opportunity to add to their professional equipment and secure credits toward a college degree. [3] During the academic year the College of Education of the University of Puerto Rico organizes late afternoon, evening, and Saturday courses designed especially for teachers in service. Nineteen courses attended by 184 teachers were organized during the first semester, in 1930, and 30 courses enrolling 170 teachers during the second semester. Extension courses of collegiate grade are offered also by a private college at San German.

Judged by general conditions governing the employment and economic situations in Puerto Rico, and by the progress now being made toward improvement in the teaching situation, the outlook is encouraging. Salaries compare favorably with those paid in other fields; the term of 10 months is satisfactory, acceptable standards for qualifications of entering teachers have been set up, and means of eventually attaining similar qualifications for the staff as a whole have been established. One is impressed with the belief that on the whole the staff is made up of a reason-

ably high-grade personnel with a good professional spirit, a progressive point of view, and an appreciation of the possibilities education has to offer for the welfare of the people and of the teachers' responsibility in the ultimate realization of these possibilities. Facilities for providing and maintaining a high-grade staff in the future are apparently adequate to the needs.

The instruction compares in quality favorably with school systems in continental United States. It is of course not uniform in quality and varies among districts and among schools. As stated elsewhere, professional supervision reasonably adequate in amount and apparently rapidly improving in quality is provided, which can be expected eventually to have permanently valuable results.

Puerto Rico has had an insular association of teachers since 1911. Its objectives are professional and economic improvement of the teaching group, the promotion of friendships among its members, and certain responsibilities to the families of deceased members who die in service. The association has 4,000 active members. There is a retirement system to which the teachers contribute 3 percent of their salaries. Municipalities, legislative appropriation, certain fines, donations, accrued interest, are other sources of funds. Service of not less than 25 years is required before retirement, and the beneficiary must be at least 45 years of age. The annuity varies from 40 to 65 percent of the salary at retirement. The Pension Board is made up of the Commissioner of Education, the Insular Treasurer, the president of the Teachers' Association, a school director, and a teacher in active service.

Higher and Professional Education

Public higher education is centered in the University of Puerto Rico. It maintains colleges of liberal arts, education, law, pharmacy, and business administration, located at Rio Piedras, a few miles from San Juan; colleges of agriculture and mechanic arts at Mayaguez, at practically the opposite end of the Island, and the School of Tropical Medicine of the University of Puerto Rico

at San Juan under the auspices of Columbia University. These several colleges offer the usual curricula leading to the usual degrees.

The University is governed by a board of trustees made up of the Commissioner of Education and the Commissioner of Agriculture and Commerce, *ex officio*, one member of the Senate and one from the House of Representatives appointed by the Governor on recommendation of the President of the Senate and the Speaker of the House, respectively, each for a 4-year term. There is also a special board of trustees appointed by the regular board and composed of three of its members and two additional members nominated by that college or educational society which cooperates with the University, especially in relation to the School of Tropical Medicine. The Chancellor of the University is its chief officer.

The University is supported from legislative appropriations, subventions from the Federal Government, moneys from certain fines and forfeitures, and a millage tax.

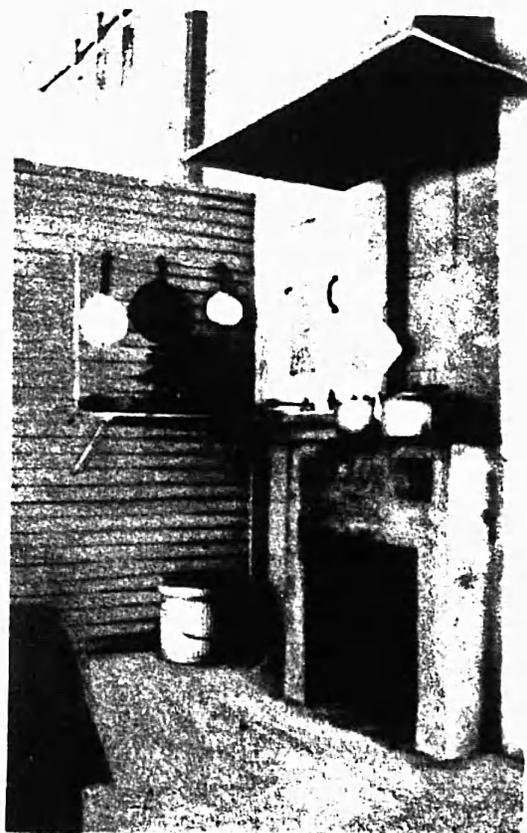
The staff and faculty are made up of 108 administrators, professors, and instructors, exclusive of the high-school and elementary practice school. There were reported 1,687 students in all the colleges in June 1931.

The College of Education is adequately equipped to train teachers, both prospective and in-service, for all the different types of educational positions which the Island maintains. It offers a 4-year curriculum designed especially for the preparation of high-school teachers; a 2-year curriculum for elementary teachers, and several additional curricula for preparing special-subject teachers, supervisors, and administrative officers, respectively.

The college offers also summer school and extension courses for in-service training of teachers. There is a university high school in connection with the university and an elementary practice school under the supervision of the instructors of professional subjects in the College of Education.

The School of Tropical Medicine is of more than usual interest. It is the first school of its kind to be established in the Americas. It offers opportunity to study in a tropical environment the

causes and prevention of that large and ill-defined group of diseases known as tropical diseases, and at the same time to observe the influence of tropical conditions on diseases in general.



*The charcoal range or "fogon" used in
Puerto Rican rural schools.*