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BRAZIL

EDUCATION IN AN EXPANDING ECONOMY

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Foreword

STUDIES ON EDUCATION in other countries have long been a responsibility of the Office of Education. This present study is another contribution in the series. It is based on background information acquired by the author during 4 visits totaling 3 years of residence in Brazil. Under auspices of the Office of Education, his most recent visit was made during 1957 to obtain current first-hand data.

The purpose of the study is to provide educational information about Brazil in its own setting for the use of educational institutions, governmental and non-governmental agencies, and scholars and other persons concerned with comparative and international education.

For assistance to the Office of Education and to the author, the Office takes this opporunity to express its appreciation to the Government of Brazil, its Embassy in Washington, D.C., and its Ministry of Education and Culture in Rio de Janeiro.

For their interest, help, and many courtesies, the Office and the author are deeply indebted to Dr. Anísio S. Teixeiro, Director of the National Institute of Educational Research, to his co-workers at the Brazilian Center of Educational Research in Rio de Janeiro, and to the officials of the Regional Research Centers—Dr. Luis Ribeiro de Sena and Professor Carmen Teixeiro in Salvador, Bahia and Professor Fernando de Azevedo and Dr. Joel Martins in São Paulo; and to Professor Abgar Renault, Secretary of Education, State of Minas Gerais. Appreciation is also expressed for assistance given by the Division of Education staff of the Pan American Union, in Washington, by United States Department of State officials in Washington and various cities of Brazil, and by many others who helped both the Office and the author.

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Chapter I

Introduction

KEY WORDS in a description of the United States of Brazil are "transition" and "expansion." In the space of only 80 years, Brazil has made veritable Paul Bunyan strides from a manual type of agrarian monoculture toward an industrialized economy. The pace has been so rapid that many Brazilians say they have difficulty in trying to keep abreast. The whole gamut of Brazilian life and culture has been affected—even the remote jungle areas now coming within reach of civilization through a network of air transportation.

Family, church, government, education, business, industry, and labor are all being affected by dynamic forces that mark the transition from a colonial and imperial Brazil to the expanding economy of the Republic. The accompanying dedication to democratic principles and the broadened interest in public affairs contrast with earlier restraints on personal and political freedom.

In Brazil, as in various other countries, business and industry need more skills than those available. And education in this expanding economy assumes new proportions as Government realizes that the educational achievement of its citizens affects the Nation's productivity.

According to Brazilian educators, one of the most serious problems facing them is that of illiteracy. They are striving to reduce the number of illiterates, who—according to Government estimates—represented about 51 percent of the population 15 years of age and older, or approximately 18,660,000 people in 1957.[1]

[1] Mariaho, Inezil Penna (el Delegado del Brasil, III Congreso Iberoamericano de Educación). El Brasil en Números. *Plena*, 41: 7, 20 Diciembre 1957. (Published by Oficina de Educación Iberoamericana.) See also UNESCO, World Illiteracy at Mid-Century. *Monographs on Fundamental Education—XI*. Paris: The Organization, 1957. p. 50.

Another problem in Brazil, also one which has a counterpart in various other countries, is that of providing teachers and schools for a population estimated to be increasing by more than a million inhabitants a year. On the one hand, there are those who believe that education is a privilege and not a necessity; on the other, those who believe that the advantages accruing from formal education are not always fully appreciated by those who have had little if any formal schooling. In short, the concept of compulsory education is not universally accepted.

The size and topography of the country present a challenge. The huge land mass of Brazil, with its metropolitan areas, scattered villages, and isolated settlements, complicates the task of providing free and universal education. As in the United States of America, disparity exists among the Brazilian States in ability to finance education. Teacher training and certification require constant thought and attention. Recognition and support of private schools (which have played a major part in Brazilian education) demand a share of attention.

That these and other aspects of the task are in the minds of Brazilians who are most directly concerned with education and culture, is evident from the many ways that they are attacking their educational problems. Commanding attention are numerous campaigns recently initiated to increase literacy, build more school buildings, extend teacher training and higher education, step up textbook publication, encourage supplemental financing, and foster related activities. Educational and sociological research is being conducted at federally supported research centers in the interests of an enlightened educational system. The United Nations Educational, Scientific, and Cultural Organization (UNESCO) and the Operation Mission of the International Cooperation Administration (ICA) of the USA are providing aid in specific areas of the country in response to Brazilian Governmental requests for technical assistance. Brazilians show a determination to solve their problems through many means and by vigorous effort.

Social legislation—to provide greater protection for the worker—is concomitant with the expanding economy's requirements for concentrations of larger numbers of more highly skilled workers. In turn, there is a growing demand for technicians to fill social service positions in civil service and in business and industry. These needs and many others create interest in and support for education.

One evidence of such interest and support is seen in the indigenous development of industrial and commercial apprenticeship schools promoted, created, and supported by industry with encouragement

of the Government. In and near factories, a network of these schools is expanding to help upgrade skilled trade and industrial labor. With the expansion is reported a change in attitude among the general populace towards skilled laborers, especially when the latter command remuneration equal to that in the professions at the outset of a career.

The industrialization has necessitated the establishment of a greater variety of schools than heretofore. The classical system of education designed to create and maintain a small elite is being transformed into a system offering a choice of opportunities to the many. Restrictions on transfer from one type of school to another have been relaxed through coordination and integration of cycles in the various branches of education above the primary level. A shift is noted from the encyclopedic approach to learning toward a growing emphasis on education for productive activity in the economy.

As elsewhere, averages in Brazil usually are not medians. There may be an extreme on either side which tends to belie the average. Statistics of frontier States pull the average down. If an educational picture is taken in the economic heart of the Nation—the States of São Paulo, Rio de Janeiro, Minas Gerais, Santa Catarina, and Rio Grande do Sul—the view is quite different from what it would be if the picture were taken in the northern and northwestern States.

Figuratively speaking, shadows of urban skyscrapers tower over the interior—the Sertão or "Polygon of Drought"—where life in isolation moves on at a slower pace. This contrast is not unnoticed by Brazilian authorities and efforts are being exerted to develop the interior. The new project to move the Capital City from Rio de Janeiro to Brasilia—the center of the country—is said to be motivated in part by a desire to encourage development of presently underdeveloped areas.

Economic and social needs and developments require research as well as education. Although research in biological sciences has been conducted for some time in Brazil, broader activities in these sciences now command an interest. Besides educational and sociological research, the National Government is encouraging scientific work in electronics, geology, marine biology, atomic energy, chemistry, medicine, agriculture, and economics. These activities place additional responsibilities on the schools.

Indeed, education is playing its part in Brazilian life and this bulletin focuses attention on education in a country which today is a colorful mosaic.

Chapter II

Educational Panorama

DURING THE PERIOD 1500–1789 Brazilian thought was considerably influenced by Portuguese colonizers and education was pioneered by a religious order. Six priests of the Society of Jesus entered Brazil in 1549. This was the beginning of the Jesuit movement there which spread from Bahia along the coast. Their aim was to found a school adjacent to the church in each community. The priests learned local dialects in order to carry European culture and their own religion to indigenous groups. They also provided schools where Christians could go beyond the rudiments of reading and writing to classical studies in literature and the arts. When at its peak, their influence terminated abruptly under an expulsion decree in 1759 issued by Pombal, the Portuguese ruler, and the semblance of the early Brazilian school system disappeared.

Independence from Portugal was declared on September 7, 1822 and an Empire was formed. During the Empire period education was characterized by a movement away from Portuguese thought in favor of a Latin-type French encyclopedism. According to Professor A. Carneiro Leão of the University of Brazil:

> . . . . It was impossible for the sons of the rural lord, or the politician, or the public functionary to aspire to any careers except those in law, medicine, politics or government service.[1]

Menial work was discharged by Negro and Indian slaves and people of humble class. The life of the leisure class was relatively simple in terms of physical work and they had time for intellectual pursuits. Schools were designed to provide an intellectual challenge for children of the upper social and economic groups. This academic custom tended to have the predominating influence on educational curriculums until recent times.

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[1] A. Carneiro Leão. The Evolution of Education in Brazil. *In* Brazil, Portrait of Half a Continent, T. Lynn Smith and Alexander Marchant, eds. New York: The Dryden Press, 1951. p. 313.

Evolution of Public Education

Not long after independence was declared in 1822, however, public authorities began to concern themselves with the development of a common school as well as with academic preparation for the socially chosen. Law schools were provided in 1827 for children of the masters, and shortly thereafter laws were passed pertaining to elementary schools. Although the Brazilian Empire was centralized, almost from the outset responsibility for public schools was divided between the central Government and the provinces. Local responsibility for elementary schools began in 1832 when the provinces initiated their first schools. The central Government founded royal schools at the primary level and established auxiliary courses for the secondary units that were attached to the law schools of Pernambuco and São Paulo. During this same period—1837—the Colégio Pedro II was begun as the Nation's parent secondary school.

J. Roberto Moreira, of the Brazilian Center of Educational Research in Rio de Janeiro, describes the Empire as semi-colonial in organization—not the constitutional and democratic nation which Peter II intended. Writing in English, he presents the problem the Empire faced in attempting to establish a common school system:

> . . . Both the emperors—Peter the First and Peter the Second—tried to set up a free popular system of education, but they could not do it in a wide and satisfactory way because of many reasons, such as shortage of financial resources, shortage of teachers, the common people's low interest in education . . .[1]

By the end of the 19th century, approximately 250,000 Brazilian children were enrolled in elementary schools out of a total population of almost 14 million, or about 18 children per 1,000 inhabitants. This fact indicates that an organized system of education for all or most of Brazil's children was not then in existence.

The Republic of Brazil was proclaimed in 1889. The first Constitution, ratified in 1891, set the stage for democratic rule. The establishment of a democratic educational system has not come quickly nor easily because the same problems which beset the Nation as a whole were also felt in education—such as those of developing leadership and of discovering methods and means by trial and error.

The Constitution of 1891 specified that the Federal Government should "organize the arts and culture" in the country; it made no

[1] The Story of Education in Brazil. *The National Elementary Principal*, 36 : 2 : 37, October 1956.

reference to primary education. Accordingly, its interpreters, evidently fearing that aid to elementary education might be prejudicial to the Federation, did not believe that Federal assistance should be provided for the lower level. However, as Professor Leão points out:

> . . . during World War I, in 1917, faced with growing problems brought about by the problem of nationalisation of the German settlers in Parana, Santa Catarina, and Rio Grande do Sul, the federal government established primary schools in zones inhabited by those settlers and designated inspectors to superintend the program.[3]

In summary, the period 1890–1920 was characterized by exploration, expansion, and the setting of an educational course. Although Federal activity at the primary education level began to wane after World War I, it was renewed in 1937 as World War II loomed on the horizon and Brazilian Federal attention again centered on the nationality of settlers in Brazil.

Educational Reform

A group of educators, with such leaders as Professors M. B. Lourenço Filho, Anísio S. Teixeira, Fernando de Azevedo, A. F. Almeida Junior, and others, started a reform movement in education immediately following the end of World War I. This movement was typical of general Brazilian unrest culminating in the Revolution of 1930, when Getúlio Vargas assumed the presidency of the country. Many of the concepts and much of the philosophy of its schools today were conceived in this reform period when ideas were fermenting as a reaction against the traditional scholastic system which had prevailed. Professor Azevedo indicates that observers considered the reform of 1928 in the Federal District as "the most intense center of irradiation" of new ideas in pedagogical techniques:

> Some historians of education have not hesitated in affirming that with the reform substantiated in decree no. 3,281 of January 23, 1928, we entered resolutely upon a new phase of the history of Brazilian Education.[4]

Professor Azevedo goes on to say that the reform movement in Brazilian education was a symptom of the new state of affairs within the country, created by economic, political, and social pressures to-

[3] *Ibid.*, p. 316.
[4] Brazilian Culture: An Introduction to the Study of Culture in Brazil. W. R. Crawford, tr. New York: The Macmillan Co., 1950. p. 446.

gether with a fermentation of ideas spreading through the field of culture after World War I.[4] Included were internal migration toward the south, immigration, a rise in industrialization, evolution in economic life, a convergence of population in São Paulo, and ideas from Europe and North America which brought about transformations in thinking and changes in basic institutions and beliefs. The Revolution of 1930 marked a culmination point in the mobility of the times.

The direction which education took seemed compatible with beliefs in the newly acquired democracy. An attempt was made to bring about a closer relationship between the school and family, Government, and world conditions. New objectives were allied to National, social, and democratic ideals through renovation of procedures and related techniques. The social function of the school and internal enrichment of its curriculum were given emphasis. The concepts of extending educational opportunities to all and according respect for human personality came increasingly into the picture. The words of John Dewey were quoted as aims—"the panorama of an ampler and richer life for man in general, a life of greater freedom and of equal opportunity for all, to the end that each may develop and may achieve all that is in him to be." [5]

This phase of educational history in Brazil produced the first public school system aimed at education for all Brazil's children. Changes have developed with speed in the last 30 years and evidence indicates that, as further time passes, the momentum generated will open new frontiers.

Contemporary Panorama

Many of the problems facing Brazil in today's schools can be attributed to shortcomings of the past. And this situation is not peculiar to education; it relates to life in general. Nevertheless, encouragement of scholastic training for the few and failure to make adequate provision for rudimentary education for the many, have had their effect on Brazil's problems in industrializing her economy. For example, it was only natural for the masses of people to want the type of training afforded to the few. The predominant desire of

[4] *Ibid.*, p. 448.
[5] *Ibid.*, p. 447.

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students first gaining admission to a school seemed to be for that type of training which would lead to a preferred status socially and economically. Dr. Anísio S. Teixeira, one of Brazil's educational philosophers, pictured the situation in an address at a session of the National Federation of Industries in São Paulo:

> In reality, the Brazilian people living in the midst of aristocratic and academic education also wish: to achieve academic and aristocratic status, to be educated . . ., to be graduated . . ., but unfortunately we have only provided the money to maintain schools for the privileged class.*

The inverted triangle placing emphasis from higher education downward made it easier to tip the triangle off its base. Not only were universities selective; primary schools were also. Here is the crux of Brazilian educational problems as Dr. Teixeira sees it:

> . . . The people are really ascending in Brazil. We cannot any longer say as we used to say before: "we and the people;" we have to say: "we, the Brazilian people" . . . these people who do not yet come to sessions . . . to debate with us their education problems, but who already solve political problems, already elect their governors through the free and secret vote, . . . are, each day, feeling more freedom and independence in the conquest of their autonomy . . .
>
> The education which we have been organizing until now in this country was never directed to the people. It was education for *our* class. We permitted it to the people as a tolerance. Although stratified in a society of classes, we have always had the sense of humor to maintain our classes open. And, thanks to a selective education, we removed from the popular classes those demonstrating capability to participate with us in the banquet of Brazilian life. We did not close the door . . . but we selected those who might enter . . . .
>
> Nothing is more natural than such a selective primary school of this nature giving non-approval to 70 percent . . . . They are no good for studying. "Good for the studies" means dislike for work, dislike for making effort, but liking for learning the verbal nothingness, knowing by heart all the ridiculous nomenclature which the school imposes on them. With such a selection process, initiated in the first primary year, the school takes to the last elementary grade 15 percent of its students. About 600 thousand students. Of these 600 thousand, only about 20 thousand complete the last year of senior high school. These are the candidates for the University schools . . . .
>
> The Brazilian problem is that of the big group of children who abandon the primary schools because they do not have, by our false pedagogical theory, intellectual requirements for study. This big group of Brazilians who, far from being unintelligent, are the well-gifted for training, those who like to do things, those who love to work, those who cannot stay in school. Among the surviving ones, those who are the more docile to

* June 15, 1956. (Translated from the mimeographed Portuguese text, p. 2.)

> academic torture of the school, who, despite sticks and stones, reach the fourth year—still among these—about 500 thousand children cannot find schools to continue their education, not even the academic type which is the only one we are trying to offer them.[6]

The pressures applied on schools by industrialization and the demands for universal education have caused chain reactions. In efforts to provide for the increased numbers of children in the schools, overcrowding and double sessions have resulted. In some areas the situation has become so critical that a third session has been inaugurated, which tends to reduce the length of the school day and affect teaching efficiency when the same teacher handles more than one session. Where schools cannot be constructed fast enough to meet the needs and where there is a shortage of teachers, it naturally follows in any country that many children tragically are turned away.

Not all difficulties can be linked with tradition, nor all strengths tied with the present. The modern foundation was begun during the regime of President Getúlio Vargas from 1930 to 1945. Subsequent administrations are credited with supporting continued improvement of education.

It would be impossible to depict an accurate educational panorama of Brazil without calling attention to other factors such as the size of the country, racial and ethnic groups, and economic and social conditions. The panorama is large, detailed, and complex; and it is Brazilian, although various influences from abroad have entered into the scheme of things.

Size

The United States of Brazil is the world's fourth country in size and continuous land area. It borders all but 2 of the South American countries—Chile and Ecuador. The total boundary line around Brazil is about 14,000 miles; the Atlantic coastal line exceeds 4,800 miles. Within this huge Republic, there are 3 distinct regions: The Amazon River Basin, the semi-arid region of the northeast, and the uplands part of the southern coastal plateau.

This vast expanse of territory with its abundance of natural resources—partly developed and partly undeveloped—is the pride of Brazilians. On the other hand, size has contributed to many of the country's basic problems. Some areas have fewer than 2 persons per square mile. (The average population density for the Nation is 15 per square mile.) Great expanses, still relatively untouched, are

[6] *Ibid.*, p. 5–7.

waiting to be developed. In spite of the fact that Brazil is air-minded and air facilities are being expanded to reach most parts of the country, many people remain in isolation. The cost of developing the interior comes high and not too many people with the technical know-how desire to leave the comforts of metropolitan life to become industrial pioneers in this interior.

The implications for education are obvious. Isolation and lack of communication create localism. Formal schooling tends to lose importance to people in remote areas and the attention of educational authorities tends to be directed toward those places where numbers or social pressures are greater. Providing school facilities in sparsely populated areas is expensive and, at times, almost impossible. Teachers are not attracted primarily to areas where level of living is low, and supervision becomes difficult for constituted authorities.

Various figures on the distribution of population show from 66 to 75 percent rural and 25 to 34 percent urban, with 90 percent living in a third of the country—along the coast and mainly in the southeast.

Racial and Ethnic Groups

Racial composition of the Brazilian population (51,955,397 reported in the 1950 census) includes the basic stocks of humankind—red, white, black, yellow, and the admixtures evolving through the years.

The white strains, representing 61.66 percent of the population, trace primarily to European origin, while the mulattoes (pardos) representing 26.54 percent, primarily stem from intermarriages of Negroes and whites starting when the early white settlers of Brazil imported Negroes from Africa as slaves. The third largest group—10.[illegible] percent—are Negroes. The remaining 0.84 percent includes the yellow stocks stemming primarily from the Japanese.[9]

Schools in Brazil have not restricted entrance on grounds of race or color, and racial prejudice has not been a National problem. Children have been excluded from schools by such factors as lack of facilities and parental inability to pay for schooling. As public education is extended to larger segments of the population, such factors can be expected to decrease in importance.

National origins of the population are diverse also. Immigrants to Brazil have come from many lands. In 1955, for example, Brazil's 55,166 immigrants included 21,264 Portuguese, 10,738 Spaniards,

[9] Conselho Nacional de Estatistica. Anuário Estatistico do Brasil—1956. Rio de Janeiro: Serviço Gráfico do IBGE, 1956. p. 27.

8,945 Italians, 4,051 Japanese, 1,122 Germans, 2 Russians, and 9,044 of other nationalities.[10]

Nationality has played a part in the behavior of some immigrant groups, especially before World Wars I and II. German, Italian, Polish, and Japanese immigrants tended to concentrate in nationality colonies, particularly in the States of São Paulo, Paraná, Santa Catarina, and Rio Grande do Sul. Populations in such towns as Joinville, Blumenau, and Novo Hamburgo were almost transplantations from Germany. Schools, newspapers, churches, and businesses used the German language. These and similar settlements of other particular nationality groups contributed to the Government's decision to exercise jurisdiction over schools in order to assist youth to gain patriotism for their new homeland. The use of Portuguese in all schools was enforced and later was written into the Constitution as mandatory.

Before Brazil restricted immigration, many illiterates entered Brazil and added to and intensified the illiteracy problem because of language difficulties. Many immigrants of the last two or three decades still do not have facility in Portuguese. Shortage of teachers and of school facilities have made it difficult for schools to cope with problems involved in the assimilation of immigrants.

Economic Conditions

Traditionally an agricultural economy, Brazil has depended primarily on one type of crop for foreign exchange—first sugar cane, then rubber, and then coffee. Today, in addition to producing about one-half of the world's coffee, Brazil produces a third of the world's bananas, one-fifth its cacao, and some of its cotton. Cattle increased by about 33 percent in the period 1947–56. Her domestic market absorbs most of the corn, rice, sugar cane, manioc, and bean crops.[11]

Particularly during World War II and the immediate postwar years, Brazil was forced to meet many of her needs. By way of oversimplified illustration of recent change in Brazil's economy, some 40,000 new factories are reported to have been established between 1939 and 1949. They range in size from tiny plants to huge steel mills which rank among the largest in the world. Its hydro-electric power developments are massive and their impact upon society is

[10] *Ibid.*, p. 77.

[11] Conselho Nacional de Estatistica. *Brasil, Present and Future.* Rio de Janeiro: IBGE Printing Office, 1957. p. 1–22.

not yet fully realized. Brazil is rapidly becoming a technological power.

New roads are being built. Bus transportation is increasing rapidly, as is trucking. Air transportation is booming and domestic per capita consumption of such products as sugar, wheat flour, rice, cement, oil, and gasoline naturally has soared. Minerals are major potentials for exploitation. Iron, gold, quartz, salt, mineral waters, and uranium, cerium, thorium, and other atomic materials provide clues to Brazil's future.

Indeed, Brazilian economy is developing on many fronts, and transition and expansion are altering the country's societal map.

Social Conditions

Industrialization inevitably tends to cause shifts in rural-urban patterns of population. In Brazil, there has been an exodus from rural areas to the cities, motivated in part, at least, by the promise of higher wages and a better level of living. Brazil, with her many recent architectural triumphs, found herself—like other industrializing countries—faced with the emergence of shanty towns. The industrial State of São Paulo has reportedly grown 4 times as fast as the general population. Even so, under 1950 census criteria, 63.8 percent of the population is rural and some authorities indicate a still greater percent.

The laborer has taken on a new role. He has joined fellow laborers to form unions, and he is realizing new benefits. Legislative groups are losing the homogeneity of the past.

The family is less self sufficient than formerly. Economic independence allows women greater freedom of choice in marriage. Parents still are consulted in marriage plans; in urban areas, they are less likely to have the final say.

Women's suffrage has been attained and legislation in the economic and social fields is being enacted in such areas as hours of work, pay equalization, and the like. It now is possible for women to get jobs in many occupations new to them, whereas the earlier philosophy was restrictive even in teaching. Increasing numbers of women attend the universities, especially the schools of philosophy, arts, letters, social work, nursing, and science.

When sons marry, they are less likely now than before to remain in the paternal home. According to reports, intermarriage has increased among local and immigrant groups and across religious lines.

Implications for Education

The traditional one-crop agricultural economy presents problems for education because financial support depends in large measure on the success or failure of the crop. Greater diversification, while bringing new problems, tends to build a more stable economy. It also makes new demands on education in terms of manpower training—diversification in courses, and planning and adaption to meet new needs.

The key words to describe the Brazilian educational panorama are first of all "transition and expansion," but they are also "experimentation," "variety," and "virility."

Chapter III

Educational Organization

ADMINISTRATIVE RESPONSIBILITY in Brazilian education is located at Federal, State, and municipal levels. Inasmuch as the United States of Brazil is a Federal Republic, education, like other public services, has been fostered and developed by means of coordination between the central Government and the federated States. The system of education has grown within the structure of the Brazilian Constitution and Federal laws. The National laws permit considerable local adaptation and freedom of operation, especially in elementary and normal school training. The educational systems in the five territories are entrusted to the Federal Government. Municipal governments coordinate their educational activities with the system of the State in which they are located.

Decentralization

Brazil takes pride in the fact that decentralization of educational administration is a tradition. Brazilian educators recognize that this decentralization is less than in the USA, but Brazil was a political entity which conceded certain autonomy to the States, whereas the USA came into being by the federation of already organized separate colonies.

State systems began to assume more direct responsibility pertaining to elementary education and normal or elementary teacher training during the period of the Republic. Responsibility for secondary and higher education is retained by the Federal Government. States, cities, towns, villages, and individuals may found and maintain sec-

ondary schools and institutions of higher learning, provided they are recognized and run in accordance with the policies and curriculums established by the Federal Government. The Government also inspects these institutions.[1]

Private schools have played and are playing an important role in Brazilian education. The majority, belonging to the various religious denominations, are sectarian. Although privately operated, they are required to meet and maintain Federal inspection standards as to curriculums, certification of teachers, and facilities. By law, religious instruction is permitted in schools in accordance with the religious preference of the student and/or his parents, provided enrollment for this instruction is voluntary.

Legal Bases

The present Constitution, proclaimed in 1946, specifies that it is within the authority and competence of the Federal Government to legislate on "the patterns and bases of national education." Many of the educational stipulations in this 1946 Constitution had roots in the former Constitutions of 1891 and 1934 and in the *Carta Constitucional* of 1937.

Acting under Article 5 of the 1946 Constitution, which gives the Union power to legislate on "the patterns and bases of national education," the Minister of Education and Health [2] transmitted to the President in October 1948, a document bearing such a title (Directrizes e Bases da Educação Nacional). The scope of this document is indicated by the following excerpts as translated into English:[3]

The Right to Education

Education is the right of all and shall be given at home and in school. The right of education shall be assured:

1. **By the obligation, imposed on parents or guardians, of providing it by all means within their ability, to the children and youth in their care.**
2. **By the public or private creation of schools at all grades.**
3. **By a variety of courses and flexibility in curriculums.**

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[1] A. Carneiro Leão. The Evolution of Education in Brazil. *In* Brazil, Portrait of Half a Continent, T. Lynn Smith and Alexander Marchant, *eds.* New York: The Dryden Press, 1951. p. 322.

[2] Known as the Minister of Education and Culture since July 25, 1953.

[3] These excerpts are identified in footnotes giving the number of the Article from which taken.

4. By free schools henceforth established for official elementary education and extending to the higher grades and private schools, by means of—
   a. a progressive reduction, finally reaching abolition, of the fees and emoluments of official schools
   b. authorization of benefits to establishments that admit students free or at reduced rates
   c. assistance to students who need it, in the form of supplying free, or at reduced rates, school materials, clothing, food, and medical and dental services
   d. the granting of scholarships to stimulate specialized studies of general interest, or to permit persons of superior qualifications to continue their studies in public or private institutions
5. By free official schooling above the elementary level for those students who appear qualified but who lack funds in whole or in part.[4]

The Purpose of Education

National education is inspired by the principles of liberty and the ideals of human solidarity.

In the direction of liberty, it shall favor the conditions for full development of the human personality within the framework of democracy.

In the direction of human solidarity, it shall provide incentives for the cohesion of the family and the formation of cultural and spiritual bonds; strengthen awareness of the historic continuity of the Nation and the love of peace; and resist inequality of treatment because of religious, philosophical, or political convictions, as well as class and race prejudices.[5]

Educational Administration

Federal and local authorities are empowered to assure the right to education within the terms of this law, promoting, stimulating, and aiding the development of teaching and culture.[6]

●

The powers of the Union, concerning education and culture, shall be exercized by the Ministry of Education, with the exception of those relating to establishment for military training.[7]

●

The Ministry of Education, as the organ responsible for the Federal administration of education, has the responsibility of supervising the observance of this law and promoting the achievement of its objectives, aided by the National Council of Education and the departments and service instituted for this purpose.[8]

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[4] Directrizes e Bases da Educação Nacional, Article 1.
[5] *Ibid.*, Article 2.
[6] *Ibid.*, Article 3.
[7] *Ibid.*, Article 4.
[8] *Ibid.*, Article 5.

Kindergarten Education

Kindergartens have the objective of assisting children less than 7 years old and giving them adequate education.[9]

Business enterprises that employ mothers with children less than 7 years old shall be encouraged to organize and maintain, alone or in cooperation with public authorities, kindergartens for children.[10]

Elementary Education

Elementary instruction, which is obligatory for children from 7 to 12 years of age and also may be extended obligatorily to those 13 and 14 years of age, shall be conducted only in the National language.[11]

University Education

Universities are constituted by joining together, under an autonomous common administration, three or more establishments for higher education, one of which shall be a Faculty of Philosophy, Sciences, Letters, and Education, and two of which, among others, shall be Faculties of Law, Engineering, or Medicine.

The name "University" is applied exclusively to institutions of this kind and to institutions of higher learning for agricultural education.[12]

The statutes of each University, drawn up by the respective University Council and approved by the National Council of Education, shall adopt, in observance of this law, the following concepts:

1. Educational, administrative, and financial autonomy.
2. Specificity of university administrative organs.
3. Limited terms of office in administration or representation, with reelection permitted.
4. Listing of the finances and patrimony of the institution.

The educational autonomy of the University is characterized by the privilege of determining its curriculums, study program, teaching methods, examinations and examination periods, and the processes of determining educational progress and the occasions of these tests, with strict observance of the dispositions of Article 39.

The administrative autonomy of the University is characterized by the power of:

1. Drawing up the statutes and bylaws of its school and all its organs.
2. Organizing a triple list for the selection of the Director, according to the terms of Article 40.
3. Hiring or discharging employees who do not have civil service status.
4. Employing professors on contract, when paid from its own revenues.

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[9] *Ibid.*, Article 14.
[10] *Ibid.*, Article 15.
[11] *Ibid.*, Article 16.
[12] *Ibid.*, Article 48.

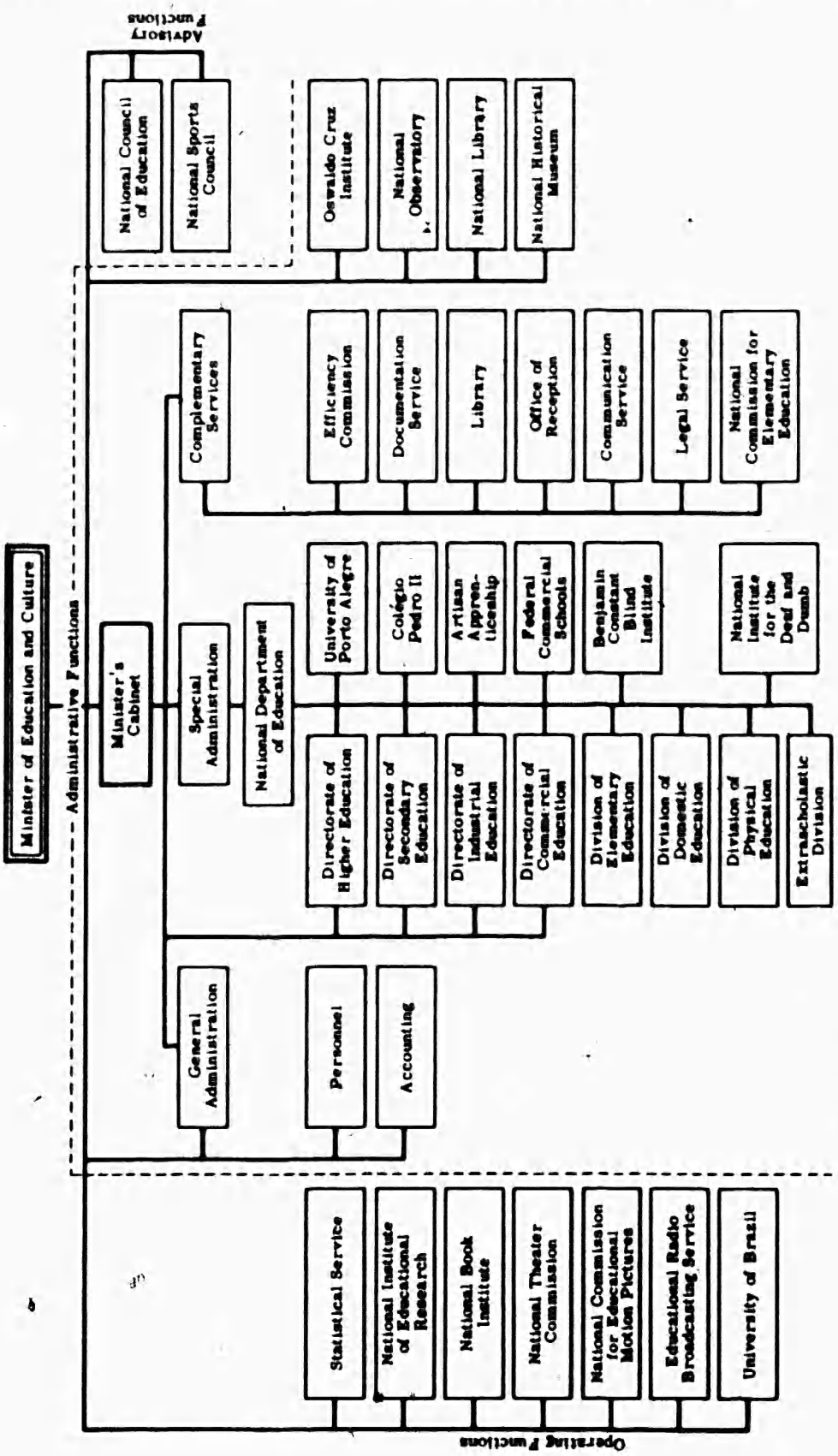

Figure 1.—Organization of the Ministry of Education and Culture

The financial autonomy of the University is characterized by the power of:

1. Establishing and administering its patrimony.
2. Organizing the annual budget of receipts and expenditures, disbursing the respective funds and authorizing extraordinary expenditures, observing, with reference to subventions from the public authorities, the accounting system proper to the same.
3. Accepting gifts, bequests, and legacies.
4. Supervising the accounts of those responsible for administration.[33]

General Items

On the basis of reciprocity and the following prior consultation, or by initiative of the Ministry of Education, the Union shall sign agreements with foregin governments concerning the validity of diplomas granted by the respective establishments for intermediate or higher education, and may validate courses, with the exception of those in the National language, geography, and history, or the disciplines that relate to the special conditions of Brasil.[34]

Ministry of Education and Culture*

The Ministry of Education and Culture is the highest ranking agency in Brazilian education. It is empowered to lead and direct all the general and most of the special educational programs in the country. The functions of the ministry are many and varied, and embrace cultural, scholastic, and extrascholastic activities. The Ministry does not have control over naval, military, or aeronautical schools at secondary or higher levels. This control has been reserved for the ministries directly concerned. The Ministry of Justice cares for waifs and underprivileged children.

Before November 14, 1930, affairs pertaining to education were distributed among various governmental agencies, especially the former Ministry of Justice and Interior. On that date the Ministry of Education and Health was established (Presidential Decree No. 19,402). Three main changes have taken place since then. The first one came about in 1937 when the country was divided into 8 regions for easier administration and supervision. The following administrative divisions were set up: (1) The Federal District and the State of Rio de Janeiro; (2) the Territory of Acre and the States of Amazonas and Pará; (3) Maranhão, Piauí, and Ceará; (4) Rio

[33] *Ibid.*, Article 69. [34] *Ibid.*, Article 71.

*Description of Ministry organization based on information available to author during his research in Brazil. Since this bulletin went to press, some reorganization of the Ministry has been reported.

Grande do Norte, Paraíba, Pernambuco, and Alagoas; (5) Sergipe, Bahia, and Espírito Santo; (6) São Paulo and Mato Grosso; (7) Paraná, Santa Catarina, and Rio Grande do Sul; and, (8) Minas Gerais and Goiás.

The second change came when the Constitution of 1946 permitted further decentralization with local control, and provided for strengthening educational policies on a Nation-wide basis.

The third change occurred on July 25, 1953, when health activities were transferred to a separate Ministry of Health, and cultural activities—long a function of the Ministry of Education and Health—formally were recognized in the title of the Ministry; namely, the Ministry of Education and Culture.[15]

The Minister

The ranking official in education is the Minister of Education and Culture. Appointed by the President without need for legislative confirmation, he sits in the President's Cabinet. The length of his term of office is at the pleasure of the President. There are no specific professional requirements for the office, although the person appointed must meet the general requirements expected of ministers of State, such as that of being a Brazilian citizen over 25 years of age. His primary duties are administrative. He represents the Brazilian Government in international educational and cultural matters or he delegates the assignments. His position involves political and public relations and he receives many requests to speak.

Ministry Organization

Chart I shows the organization of the Ministry. The Ministers Cabinet is composed of three main administrative organs: General Administration, Special Administration, and Complementary Services. The Chief of the Cabinet is responsible for overall operations within the Ministry. General Administration is concerned with personnel and accounting procedures, and Special Administration with the National Department of Education, which administers scholastic and extrascholastic activities. Complementary Services supervises activities related to efficiency, documentation, the library, reception,

[15] Law No. 1,920.

communications, legal matters, and the National Commission for Elementary Education.

The National Department of Education looks after the instructional program. It has four main directorates covering higher, secondary, industrial and commercial education. Each directorate is headed by a Director who also is responsible to the Minister. The Divisions of Elementary, Domestic, and Physical Education and the Extrascholastic Division also are entities within the department. Since administrative functions in these divisions are more decentralized, their responsibility is not as great as that of the directorates.

Certain Schools and Cultural Agencies

The Ministry is empowered to operate and sustain various types of schools and cultural institutions and may give them financial support and supervision. Among these are Colégio Pedro II, a model secondary school, Benjamin Constant Blind Institute, National Institute for the Deaf and Dumb, National Institute of Education (a school for advanced teacher training), and the Oswaldo Cruz Institute known for its studies in biology and pathology. Other institutions in the group are the following: National Institute of Educational Research, National Theater Commission, National Commission for Educational Motion Pictures, Educational Radio Broadcasting Service, National Observatory, National Library, and National Historical Museum.

National Council of Education

The major advisory body to the Ministry is the National Council of Education (Conselho Nacional de Educação). This organization has been functioning since April 11, 1931. Although it does not have administrative functions, its assistance and advice influence the Minister's administrative decisions.

The council includes 16 members appointed by the President. Twelve are selected from education and the other 4 from cultural institutions. The Minister of Education and Culture is the ex-officio presiding officer, and the Director of the National Department of Education also may participate without vote.

This group meets annually commencing on the first working day in March. The session may not be less than 30 nor more than 60 days in length. The activities of the council as prescribed by law, include

assisting the Minister with the organization and direction of instruction; finding new sources for the financing of schools; studying and disseminating administrative and instructional ideas to institutions of learning; recommending directives for school improvement which are compatible with Brazilian ideals; and, reviewing proposals for expansion of institutions and facilities for technical, scientific, and higher education.

National Institute of Educational Research [18]

The National Institute of Educational Research (Instituto Nacional de Estudos Pedagógicos or INEP) created by Law No. 378 on Jan. 13, 1937, is a research foundation which functions under the Ministry of Education and Culture. Three educators have guided its operation to date—Manuel Bergstrom Lourenço Filho, Murilo Braga de Carvalho, and Anísio Teixeira. To encourage objective research, it has been given considerable administrative freedom. In addition to engaging in research activities, it distributes Federal funds to elementary and secondary schools, directs a school building program, fosters a campaign to reduce illiteracy, and has done much to improve textbooks and other educational publications.

Brazilian Center of Educational Research

A new segment of INEP, the Brazilian Center of Educational Research (Centro Brasileiro de Pesquisas Educacionais or CBPE), was started in 1955. The Director of INEP is also Director of CPBE, which in reality represents an expansion of the research functions of INEP. The master center is in Rio de Janeiro, and regional centers are in the cities of Recife, Salvador, Belo Horizonte, São Paulo, and Pôrto Alegre. The regional centers complement the activities of the master center by conducting research projects at the local level.

CBPE also provides a home for UNESCO specialists and others who are assisting in the development of Brazilian research projects. Personnel of the Operations Mission of ICA assist on projects dealing with the training of teachers.

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[18] Educação e Ciências Sociais for March 1956 (describes the history of functions of INEP and CBPE).

The major purposes of each center are: To study the life and culture of Brazil in order to gain a deeper understanding of the problems, to foster a closer relationship between Brazilian and foreign educational and social scientists, to improve sociological research methods, and to communicate new information to teachers in the Republic.

The activities of CBPE, both legal and implied, include studying regional cultural conditions and schools; evolving plans and recommending educational improvement for and providing special studies on educational administration, curriculums, educational psychology, philosophy of education, educational measurements, teacher preparation, and school buildings. Each of the centers is involved in the administration of demonstration schools and workshops for in-service training of teachers. The centers also award scholarships for advanced training to teachers from interior schools. One center screens the applications of students applying for international scholarships and travel.

Studies and publications put out by the research centers are evidence of their contribution to education. Many books and pamphlets are published annually by INEP and CBPE. Two main periodicals are *Revista Brasileira de Estudos Pedagógicos* (Brazilian Review of Educational Studies) and *Educação e Ciências Sociais* (Education and Social Sciences).

During 1957 approximately 25 studies were in progress. Their nature is reflected in the following tranalated titles: *Education and Social Mobility in São Paulo; Race Relations in Southern Brazil; The Educational Situation in Bahia and in São Paulo; Relationships Between the Socialization Process and Community Structure, in Itapetininga, São Paulo; Social Structure of the School.*

Campaigns

One of the ways which the Government has used to strengthen education is the use of campaigns. INEP is the agency that initiates and directs them. The first was the Adult Education Campaign with the related Rural School Building Project.[17]

Three other campaigns came into being about the same time, each known by its alphabetical abbreviation. The campaign related to Textbooks and Instructional Manuals (Campanha do Livro Didáctico e Manuais do Ensino, or CALDEME) was initiated in July 1952.

[17] See p. 96 of this bulletin.

It uses demonstration and in-service training to carry out its purpose of developing materials to assist teachers.

The campaign for the Study and Improvement of Elementary and Secondary Education (Campanha de Inquéritos e Levantamentos do Ensino Médio e Elementar) is called CILEME.

The National Campaign for the Improvement of Qualifications of Higher Education Personnel (Campanha Nacional de Aperfeiçoamento de Pessoal de Nível Superior or CAPES) includes in its campaign efforts critical studies in higher education, scholarships for local and foreign study, and, on occasion, financial assistance to institutions for selected projects. CAPES utilizes the help of the United Nations, foundations, and scholars. It issues a monthly bulletin.

National Council of Research

The National Council of Research (Conselho Nacional de Pesquisas) was created on January 13, 1951 by Law 1,310 to investigate scientific and technological knowledge. Its members come from the Ministry of Education and Culture and its research findings serve education as well as other institutions and organizations represented on the council.[18]

Getúlio Vargas Foundation

The Getúlio Vargas Foundation (Fundação Getúlio Vargas) does research in the areas of social organization and individual social rights. Although this foundation is considered to be a private institution, its functions have become of such public interest that some public funds are appropriated. Since its creation in December 1944, its activities have expanded in many directions. Current projects include the Brazilian School of Public Administration, which has attracted attention throughout Latin America; the Business Administration School in São Paulo; the Brazilian Institute of Economics; the Brazilian Institute of Professional Selection and Orientation; the Brazilian Institute of Public Law and Political Science; and, the Colégio Novo Friburgo. The progressive and experimental nature of this colégio makes it especially significant for secondary education.[19]

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[18] See Vandick Londres da Nóbrego, Revista dos Tribunais LTDA. *Enciclopédia da legislação do ensino*, p. 227–231. São Paulo: Emprêsa Gráfica, 1952.

[19] See p. 60 of this bulletin.

School Inspection

Primary Education

School inspection at the elementary level is the responsibility of the States and municipal governments. For this reason, the Departments of Education in six States have set up central inspection services—Minas Gerais, Pernambuco, Sergipe, Rio Grande do Sul, Rio Grande do Norte, and Piauí. Other States—among them São Paulo, Paraná, and the Federal District—provide these services on a regional basis, and often have regional educational research centers as well.

The work of the inspector is concerned primarily with control, although inspection regulations outline specific educational and technical duties. The State of Minas Gerais, for example, lists the educational duties of inspectors as follows: (1) To control and coordinate the services of educational guidance; (2) to visit the schools and inspect organization, equipment, technique and efficiency, teachers' qualifications, discipline, hygiene, and the progress of pupils; (3) to give suggestions to teachers and head teachers, encourage and help them not only in the application of methods and procedures, but also by offering them assistance with regard to teaching; (4) to encourage and direct educational, psychological and social research; (5) to encourage the holding of educational conferences for teachers; (6) to stimulate and control school attendance; and (7) to support the opening of school and post-school establishments.

The administrative duties of inspectors, as laid down by State law, are much more specific. The São Paulo regulations state that an inspector shall: (1) Carry out the regulations or see that they are carried out; (2) keep in touch with higher authorities; (3) conduct inquiries concerning teachers and, when necessary, suggest administrative measures; and (4) preside over the initiation of new teachers in their work.

The responsibilities of inspectors in such matters as social activities, school funds, cooperatives, extracurricular activities, and frequency and length of visits, are specified by the local area. The nature of the activities varies greatly from place to place, depending upon local financial situations, distances, establishments, number of inspectors, and duties assigned to inspectors.

The appointment of primary school inspectors likewise varies from State to State. Some States require competitive examinations

and diplomas, while others entrust inspection to those who hold diplomas from courses for school administrators. Pernambuco appoints inspectors from among directors of schools who qualify through competitive examinations, and from among the best qualified teachers of the locality. Sometimes the Governors appoint them. Inspectors' salaries have changed extensively in recent years and the salary schedules vary widely from one locality to another.

Secondary Education

The inspection and guidance of secondary education are the responsibility of the Federal Government under the direction of the Ministry of Education and Culture. Each directorate in the National Department of Education is responsible for schools within its jurisdiction. At present 24 regional departments are functioning in the Federated States. The inspectiors meet monthly to exchange experiences and promote unity of effort, and principals and teachers also meet periodically to discuss common problems.

Private as well as official schools come under the inspection of Government officials. These private schools must meet the standards prescribed by law and by the Ministry. The National Fund for Secondary Education has made possible the improvement of many private schools by providing supplementary funds.

The campaign for the development of secondary education has broadened the scope of the inspectors' activities. Their administrative duties include seeing that regulations are carried out, being present at examinations, checking the reasons why students do not appear to take matriculation examinations, authorizing students to take entrance examinations, and contributing to school efficiency through improvement of installations and equipment.

Appointments are currently made on the basis of test results. The examinations are composed of materials taken from laws which pertain to elementary education, philosophy of education, psychology, biology, sociology, and teaching methods. Special courses in educational administration are available to inspectors to help them improve their supervision. A specialist group supervises physical education throughout the Republic. About 36 percent are women.

Commercial, Industrial, and Higher Education

The Directorates of Commercial, Industrial, and Higher Education direct inspection services in these areas. Inspection procedures for commercial education parallel those for secondary schools. Industrial education does not employ a separate team of inspectors at the Federal level, but a team is appointed when the Ministry decides that industrial education installations should be visited.

Because higher institutions have greater autonomy of operation than institutions at lower levels, inspection of the former is not organized in as much detail. The main duties of the inspectors are to see that Government regulations are met. The private faculties receive the same scrutiny.[20]

Financing Education

The Elementary Education Fund comes from special taxes. Other funds for financing education are derived from general receipts at municipal, State, and Federal levels. Enrollment, examination, and certification fees are charged at higher levels in some faculties.

The basis for educational financing is found in the Brazilian Constitution of 1946. The law directs that the governments of the respective federated States be responsible for financing public education. Article 169 stipulates that at least 10 percent of the income from taxes at the Federal level shall be devoted to the organization and development of education. The governments of the States and municipalities as well as of the Federal District shall apply 20 percent of their income from taxes to education. The States consistently have devoted an average of 20 percent and the municipalities have averaged about 15 percent, with many exceeding the minimum. The State of Rio Grande do Sul spent around 27 percent of its income from taxes and 19.8 percent of its total income for education in 1953. The State of Maranhão allotted over 40 percent of its tax income and 20 percent of its total income for education. Santa Maria in Rio Grande do Sul spent 50 percent of its income from taxes and almost 14 percent of its total income. Each State and each municipality has its own particular financial arrangements.[21]

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[20] UNESCO International Bureau of Education. XIXth International Conference on Public Education: 1956 (Publication No. 176). Paris: The Bureau, 1956. p. 95–100.

[21] UNESCO International Bureau of Education. XVIIIth International Conference on Public Education: 1955 (Publication No. 168). Paris: The Bureau, 1955. p. 98–103.

A movement toward greater autonomy at local, State, and Federal levels, recommended by the National Conference on Education held by the Brazilian Education Association in 1954, is evident. Some of the present laws, however, do not permit autonomous financing. Ultimately funds, other than those specified as percentages in the Constitution,[22] are to be allotted to education—public property rentals, interest on loans, and income from special taxes. The primary source of funds can be expected to shift to municipalities with aid from the States. The States in turn will receive assistance from the Federal Government.

Federal Expenditures

Table 1 shows that the National budget for the year 1957 allotted 6,278 million cruzeiros for education, representing 5.4 percent of the total National budget. If the expenditures by other ministries for educational purposes are taken into account, the total amount devoted to education approximates 10 percent of the National budget.

In 1955 the percentage of the National budget for the Ministry of Education and Culture was 5.7; by 1957 it was 5.4.[23] Although there

Table 1.—Distribution of the Brazilian National budget: 1955 and 1957 [1]

Agency	Millions of cruzeiros		Agency	Millions of cruzeiros	
	1955	1957		1955	1957
National Congress	331	494	*Ministries*—Continued		
Treasury	47	94	Health	2,443	4,571
Executive Branch	418	927	Justice and Interior	2,705	5,027
Agencies under Executive Control	1,738	4,768	Labor, Industry, and Commerce	1,492	3,489
Judiciary	651	869	Navy	5,026	8,806
Ministries:			Transportation, Communications, and Public Works	14,089	25,518
Aeronautics	4,515	7,890	Treasury	14,369	19,807
Agriculture	3,159	6,467	War	8,300	17,624
Education and Culture	[2] 3,600	[3] 6,278			
Foreign Affairs	399	643	Total	63,284	115,973

[1] Data selected from Fundação Getúlio Vargas. Conjuntura Economica, Ano XI: 44, Janeiro 1957.
[2] Represents 5.7 percent of the 1955 National budget.
[3] Represents 5.4 percent of the 1957 National budget.

[22] According to the 1946 Constitution, Article 169: "The Union shall apply annually, not less than ten percent, and the States, the Federal district, and the municipalities not less than twenty percent, of the revenues derived from taxes, to the maintenance and development of teaching." See Russell H. Fitzgibbon *and others, eds.*, The Constitutions of the Americas (as of January 1, 1948). Chicago: The University of Chicago Press, 1948. p. 98.

[23] The Ministry of Education and Culture received 10.3 percent of the National budget in 1953.

was an increase of 2,678 million cruzeiros in 1957 over the sum for the Ministry of Education and Culture in 1955, the total budget was nearly twice as large and inflation had caused the value of the cruzeiro to decrease.

The main educational expenditures of the Federal Government have been for secondary and higher education. It has established a special fund for elementary education and it provides subsidies to private schools at secondary and higher levels.

Distribution of Expenditures

Total expenditures for education in the year 1954 were financed as follows: 38 percent by the Federal Government, 52 percent by the States, and 10 percent from municipal authorities. The percentage distribution by instructional levels was primary education, 62.6; primary teacher training, 19; secondary education, 12; and higher education, 6.4.[24]

The combined total of Federal, State, and local expenditures covered construction, 15 percent; equipment, 2.7; maintenance, 0.7; private school repairs, 1.0; administration and teaching staffs, 60.2; materials, 7.0; social assistance, 3.2; and, operation grants to independent schools, 10.2.

Financing at Instructional Levels

Preprimary education is supported by various agencies. About half of the kindergartens are financed by public and the rest by private authorities. In 1953, there were about 1,600 kindergartens, 30 municipal nursery schools (mostly attached to normal schools), and another 50 private nurseries of which 22 were assisted with public funds.

States and municipalities provide about 84 percent of the total support of elementary education. Expenditures include teachers' salaries, operating costs (medical, dental, and school supplies), and meals. The latter services are supported to a great extent by private contributions from cooperatives. Some States, in order to reduce their administrative responsibility, make direct grants to cooperatives.

Secondary education receives most of its support from private sources. The combined municipal, State, and Federal Government

[24] Conselho Nacional de Estatistica. Brazil up to Date. Rio de Janeiro: Serviço Gráfico, IBGE. [No date] p. 189.

support amounts to a little more than 30 percent. The States and municipalities, however, are beginning to assume a greater role.

Industrial and commercial, and some agricultural establishments employing more than 100 persons, are required by the Constitution to pay 1 percent of their total payrolls for the support of commercial and industrial apprenticeship schools.

National Fund for Primary Education (Fundo Nacional do Ensino Primário)

This fund was created by Law 4,958 of November 14, 1942, and continued by the Primary Education Organic Law of 1945. The purpose of the fund is to assist local agencies to reorganize and strengthen their educational primary systems. Revenue is derived from special taxes such as stamp tax on official documents and a percentage of the income derived from the liquor tax. INEP is the administering agency. Seventy percent of the annual revenue is earmarked for construction of rural primary schools and regional teachers colleges. The Campaign for Adult Education receives 25 percent to extend supplementary education for illiterate adolescents and adults. The remaining 5 percent is assigned to the organization of specialized training courses for educational administrators.

National Fund for Secondary Education

This fund, known as the Fundo Nacional do Ensino Medio in Brazil, has been in existence since November 25, 1954 to improve secondary education in the Nation by extending scholarships to needy students, supplementing teachers' salaries, and providing money to purchase equipment and improve teaching facilities. These subsidies are given to institutions whose funds are inadequate to meet minimum requirements set by the Ministry of Education and Culture. Funds are distributed in accordance with ascertained needs, and receiving institutions must devote at least 40 percent of the allotted money to teachers' salaries. The quota for scholarships is based on needs in the various areas. Funds are derived from not less than 1 percent of the National tax receipts and administered by the Ministry through INEP and the Directorates of Commercial, Industrial, and Secondary Education and by regional commissions and school boards.[28]

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[28] Ensino Medio. *Revista Brasileira de Estudos Pedagogicos*, XXIV: 69: 206–209. Outubro-Dezembro 1955.

School Buildings

As in most countries, school buildings in Brazil range from the simple to the magnificent. This variety reflects conditions under which the schools were started and under which they operate. The isolated, under-populated areas use available resources to provide for their few children. Small private schools, in most instances, started in private homes or in remodeled dwellings. As the trend moves toward public schools, the school plants are being designed for multiple purposes. Early construction was ornate and difficult to maintain; the trend now is toward simple, modern, and functional design.

Design

The INEP rural school construction program has followed certain basic designs for different size schools. Most of the interior schools provide living quarters for teachers. The highly populated centers are building multiple classroom structures with attractive landscaping and adequate play areas. The Ministry of Education and Culture is deeply involved in school building design and construction because of rapid increases in population and school enrollments. School construction is at an all-time high.

Modern design is evident. One example is the Colégio do Estado de Minas Gerais in Belo Horizonte (see cover illustration). The inspiration for the design is said to have come from a box of pencils, a ruler, and a blotter. The architect, Oscar Niemeyer, who participated in the United Nations building design in New York, fashioned the auditorium like an oval-shaped blotter, the main body of classrooms like a ruler, and the wing like a box of pencils. Many distinctive designs are being used in new construction throughout Brazil.

The rural school building program, initiated by the Federal Government and carried out by INEP, resulted in the construction of 6,125 schools as of May 31, 1955. A total of 7,021 schools were to be constructed under the program. Of those not finished, 597 were under construction and 277 were to be started. The budget provided for 680 multi-classroom schools. By the end of 1955, 460 had been completed, 155 were under construction, and 65 remained to be built. Of the total number of schools involved, only 41 were remodeled. The campaign does not include school buildings erected by States and municipalities, but only those the Federal Government has built and given to local authorities for operation and maintenance.

Legislative Responsibility

The Federal Government, the federated States, and the municipalities all participate in designing and promulgating official regulations relative to school construction.

The National Institute of Educational Studies is responsible for establishing standard requirements for the construction of primary schools and it controls the execution of the program at the Federal level, including examination of plans and building estimates. The Directorates of Secondary, Commercial, and Industrial Education assume similar responsibilities for schools at the intermediate level. At the State level, the task is assigned to the public works services except in a few cases where specific agencies have been organized to manage the school building program.

In 1950, it was estimated that 29,988 publicly owned primary classrooms, 49,669 publicly rented rooms, and 10,116 private school classrooms were in existence.[36]

The Ministry of Education and Culture, replying to the school building expansion questionnaire for use at the XXth International Conference on Public Education in Geneva in 1957, estimated that "two million places are at present still required."

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[36] UNESCO International Bureau of Education. Expansion of School Building: A Comparative Study (Publication No. 184). Paris: The Bureau, 1957. p. 66.

Chapter IV

Problems and Practices in Elementary Education

THE CONCEPT of the common school has been recognized in Brazil for about 60 years; but an organized system of public education has existed for fewer than 30. The long period without a public education system nurtured the number one problem of education—illiteracy. The same philosophy that permitted illiteracy to exist also contributed to lack of interest, poor financial support, and little emphasis on teacher training. Today, it is different: the educational climate has improved, with signs of more improvement.

Illiteracy

The first national census was taken in 1920. Its findings impressed officials of education and Government with the need for action, since only 35 percent of the school-age children were in school, and 75 percent of the adult population were illiterate. It also was discovered that the per-capita income was about $10 a year at the time.

As Professor M. B. Lourenço puts it:

> The shortcomings of the present elementary school system may be set down, in great part, to the country's traditional administrative policies.[1]

[1] M. B. Lourenço Filho. The Adult Education Campaign in Brazil. *Fundamental Education*, 2 : 2 : 3, April 1950.

Under the Empire, administration of elementary education was entrusted to the Provinces. Under the Republic the inequality in the States' share of the national wealth prevented improvement of the educational system. Irregular school attendance and short-term schooling resulted in what Professor Lourenço called "atrophied cultural aspirations in large sections of the population." Following the introduction of an advanced labor policy, the discrepancy between "ideals aimed at by the law and the cultural and social—including consuming—capacity of a high percentage of the workers" became apparent.[2]

This inequality and the resulting needs have motivated the Federal Government to increase assistance to education through the National Fund for Elementary Education and to assume more leadership at the Federal level. Because of traditional lack of support, previously many decisions were made and procedures worked out for schools on a conjectural rather than a scientific basis. INEP is seeking to rectify this situation. Its research studies confirm what educators have long believed: that the Brazilian schools, beginning with the elementary level, still are selective even though their doors are opening wider.

The public elementary school is said to lack the social prestige of the private school, which can select children whose parents have the means to pay for their children's education. Moreover, the private school is an urban development which virtually is nonexistent in rural communities, including Territories where the Federal Government has jurisdiction.

The philosophy of Brazilian education is tending away from concentration on enabling selected pupils to obtain certificates and diplomas. Even primary education has inclined towards such strict formalism, with incentive to complete their studies being felt only by those intending to sit for the examination to enter a more advanced school.[3]

The census of 1950 revealed that 51.65 percent of the total population over 9 years of age could not read or write—a drop of 5.31 percent from the 59.96 percent reported in the 1940 census.

All of the States but Rio Grande do Sul showed a lower percentage of illiterates among male population than female. By sex, the figures indicated 47.38 of the men and 55.83 percent of the women were illiterate. Among school-age children and adolescents, the percentages were almost equal for the sexes; as the ages increased the differences were accentuated.

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[2] *Ibid.*, p. 4.

[3] M. B. Lourenço Filho. Education in Brazil (John Knox, *Tr.*). Rio de Janeiro: Ministry of Foreign Relations, 1951. p. 9.

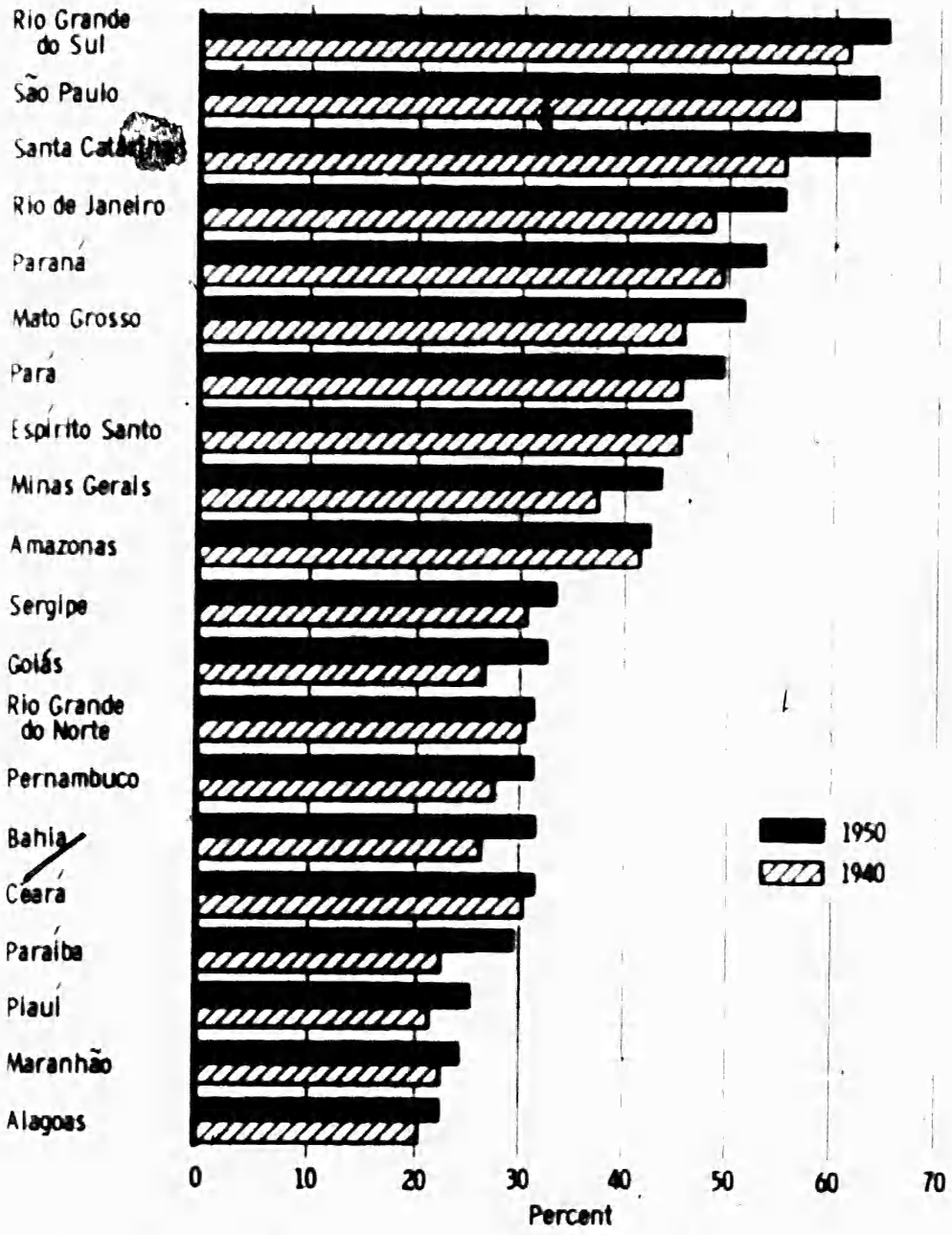

Figure 2. — Percent of literacy in population over 10 years of age, by States: 1940 and 1950 census

The greatest numbers of illiterates were found in rural areas where youth are expected to be producers, both in and out of the home, and where the importance of schooling tends to be minimized.[4]

[4] Conselho Nacional de Estatistica. Brazil: 50% de Analfabetos. *Revista Brasileira dos Municipios*. VIII: 30: 148, Abril-Junho, 1955.

Table 2 shows that in 1950, seven states had a higher percentage of literates than illiterates among the population over 9 years of age. The Federal District had the highest literacy rate with 84.48. Next in order were Rio Grande do Sul, São Paulo, Santa Catarina, Rio de Janeiro, and Parana. Mato Grosso had a 51.25 perecent literacy rate. None of the States of the north or northeast was represented in higher literacy group. Two States from the east and 1 from the west-central region were represented, along with 4 from the southern region.

Table 2.—Number and percentage of literates and illiterates over 9 years of age, by State and Territory: 1950 Census [1]

State and territory	Number			Percentage	
	Literate	Illiterate	Total	Literate	Illiterate
1	2	3	4	5	6
State					
Alagoas	176, 762	570, 786	747, 548	23. 65	76. 35
Amazonas	180, 709	200, 906	381, 690	47. 85	57. 15
Bahia	1, 055, 531	2, 290, 218	3, 345, 849	31. 55	68. 45
Ceará	569, 981	1, 257, 736	1, 827, 717	31. 19	68. 81
Distrito Federal	1, 614, 800	295, 873	1, 912, 673	84. 48	15. 52
Espirito Santo	277, 119	312, 360	589, 479	47. 01	52. 99
Goiás	273, 502	554, 217	827, 719	33. 04	66. 96
Maranhão	278, 141	824, 988	1, 103, 729	25. 22	74. 78
Mato Grosso	181, 900	173, 081	354, 981	51. 25	48. 75
Minas Gerais	2, 343, 032	3, 002, 599	5, 345, 631	43. 81	56. 19
(Serra dos Aimorés) [2]	23, 111	81, 096	104, 207	22. 18	77. 82
Pará	280, 223	499, 413	780, 646	48. 71	51. 29
Paraíba	344, 930	837, 047	1, 181, 987	29. 18	70. 82
Paraná	764, 173	692, 098	1, 456, 271	52. 47	47. 53
Pernambuco	734, 192	1, 621, 027	2, 375, 219	31. 75	68. 25
Piauí	178, 766	522, 689	701, 455	25. 59	74. 41
Rio Grande do Norte	213, 282	453, 817	667, 179	31. 96	68. 02
Rio Grande do Sul	1, 934, 450	1, 054, 551	2, 988, 001	65. 53	34. 73
Rio de Janeiro	909, 209	715, 288	1, 624, 557	55. 97	44. 03
Rondônia	13, 108	13, 574	26, 682	49. 13	50. 87
Santa Catarina	671, 153	374, 225	1, 045, 378	64. 20	35. 80
São Paulo	4, 573, 762	2, 317, 352	6, 891, 114	66. 37	34. 63
Sergipe	148, 453	292, 625	441, 078	33. 63	66. 37
Territory:					
Acre	26, 699	50, 610	77, 109	34. 37	65. 63
Amapá	11, 435	14, 507	25, 942	44. 08	55. 92
Fernando de Noronha	253	86	439	80. 41	19. 59
Rio Branco	5, 467	6, 818	12, 285	44. 50	55. 50
Total	17, 675, 504	18, 882, 486	36, 557, 990	48. 35	51. 65

[1] Figures drawn from Conselho Nacional de Estatistica. Anuario Estatistico do Brasil—1956 (Ano XVII). Rio de Janeiro, 1956. p. 337.
[2] Area has been in litigation between Minas Gerais and Espirito Santo.

Table 3 shows the number of persons over 9 years of age in the Brazilian population who had completed various levels of education, as revealed by the 1950 census. The number completing elementary and secondary schooling were divided almost evenly between the sexes, while great disparity was evident in favor of the male sex at the higher education level. Few people in proportion to the total pop-

Table 3.—Number of persons over 9 years of age who completed schooling at elementary, secondary, and higher levels, by State and Territory: 1950 Census [1]

State and territory	Elementary		Secondary		Higher		Not indicated		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1	2	3	4	5	6	7	8	9	10	11
State:										
Alagoas	16, 104	20, 601	3, 046	4, 248	886	67	8	10	20, 043	24, 926
Amazonas	11, 204	11, 442	2, 267	2, 619	528	44	4	5	14, 003	14, 110
Bahia	101, 083	111, 420	14, 047	17, 224	5, 246	441	87	165	120, 413	129, 270
Ceará	39, 695	40, 279	8, 864	11, 122	2, 615	220	21	149	42, 195	51, 771
Distrito Federal	375, 240	398, 302	121, 149	119, 289	39, 770	4, 439	800	1, 887	537, 059	514, 017
Espírito Santo	30, 457	28, 509	4, 451	5, 234	1, 124	53	8	5	36, 040	34, 901
Goiás	21, 574	19, 523	3, 570	4, 109	1, 304	77	13	10	26, 461	23, 719
Maranhão	20, 117	23, 262	3, 674	3, 695	625	67	2	1	23, 818	27, 025
Mato Grosso	26, 072	21, 713	3, 738	3, 345	1, 057	63	13	13	30, 991	25, 114
Minas Gerais	320, 569	335, 003	42, 676	58, 796	15, 335	928	74	176	398, 654	394, 875
(Serra dos Aimorés) [2]	591	336	45	24	21	1		3	657	364
Pará	32, 978	36, 802	5, 981	6, 267	1, 726	152	26	75	40, 711	43, 417
Paraíba	19, 868	25, 910	3, 472	5, 043	1, 174	56	12	32	24, 526	31, 041
Paraná	104, 182	96, 083	17, 482	12, 895	4, 770	445	75	110	126, 459	109, 083
Pernambuco	81, 083	95, 462	16, 626	19, 535	4, 784	286	58	127	102, 451	115, 510
Piauí	13, 022	14, 440	2, 229	2, 777	567	24	2	3	15, 821	17, 244
Rio Grande do Norte	11, 272	15, 179	3, 171	2, 989	856	37	6	166	15, 305	18, 371
Rio Grande do Sul	255, 737	263, 737	41, 835	31, 894	11, 407	898	250	695	309, 229	297, 214
Rio de Janeiro	133, 250	124, 829	25, 845	25, 131	6, 801	588	114	150	165, 510	150, 698
Rondônia	1, 193	851	203	168	72	7	1	6	1, 469	1, 027
Santa Catarina	137, 509	127, 935	6, 447	5, 638	1, 929	63	35	22	145, 920	133, 678
São Paulo	982, 523	865, 015	162, 904	146, 181	40, 800	4, 729	1, 068	2, 260	1, 133, 320	1, 018, 215
Sergipe	9, 926	13, 422	1, 578	2, 796	529	37	1	11	12, 034	16, 266
Territory:										
Acre	1, 880	1, 627	228	191	114	6			2, 242	1, 824
Amapá	961	692	139	141	79	6		2	1, 179	741
Fernando de Noronha	82	51	19	9	9			1	110	61
Rio Branco	652	534	74	73	47	3	2	2	775	612
Total	2, 704, 836	2, 682, 839	495, 910	491, 228	144, 233	13, 837	2, 557	6, 109	3, 347, 536	3, 195, 043

[1] Figures drawn from: Conselho Nacional de Estatística. Anuario Estatistico do Brasil—1956 (Ano XVII). Rio de Janeiro, 1956. p. 327.
[2] Area has been in litigation between Minas Gerais and Espírito Santo.

ulation of 51,944,397 had the benefits of elementary schooling and; fewer still, the benefits of secondary and university education. Taking into account the fact that States such as Alagoas, Amazonas, Espírito Santo, Goiás, Maranhão, and Mato Grosso are less densely populated, they still have had a very small percentage graduate from higher institutions of learning.

Purpose and Philosophy

The Constitution of 1946 is a basic document for Brazilian education as well as for the country as a whole. It continued the National system of education and provided for its coordination with State systems. The concepts on which Brazilian education is being built are found in such constitutional statements as the following: "Everyone is entitled to education, which shall be given at home and in the schools, and which shall be inspired by the principles of liberty and the ideals of the brotherhood of man." The Constitution provides that primary education shall be compulsory, free, and taught in the national language.

In its statement of general objectives, the Federal elementary education organic law points toward unifying primary education objectives for all Brazil. This direction is significant because, although education is a function of the States and municipalities, the National congress has responsibility for framing policies for the National system. In view of this authority at the National level, the 1946 Constitution aimed at greater decentralization.

Some of the basic hopes expressed in the organic law are intended to help schools establish conditions which will permit full development of human personality within a democratic framework. The school is to provide incentives which will bring about cohesion with the family in development of cultural and spiritual bonds, strengthen an awareness of the historic continuity of the Nation, and strengthen the love of peace. Resistance to unequal treatment because of religious, philosophical, or political convictions and resistance to race and class prejudices are additional challenges for elementary schools. These goals seem to recognize the existence of a common heritage of ideals and aspirations for all the people of Brazil regardless of their location and of their political, economic, and social status.

Other goals are formalized in the legal framework of local systems of education. More specific objectives have resulted from teacher

reactions which contributed to the official elementary curriculum outlined in Decree No. 2,351 of March 22, 1947; namely, to:

Read silently and orally

Speak with precision and clarity

Write satisfactorily

Use elementary mathematics conveniently in practical life

Maintain good health individually and collectively

Express oneself creatively

Be an effectve participant in family life

Participate effectively in social life, including practical religion

Study with profit, including the habit and capacity to establish proposals and goals which are tenable

Utilize time efficiently while studying

Note advantages and disadvantages, contrasts and likenesses

Distinguish facts from opinions

Collect information from books, journals, and magazines

Interpret maps, charts, and graphs

Organize and revise efficiently

Except for selectivity, no single educational philosophy seems to have been paramount in elementary education. The theories of Herbart, Pestalozzi, Montessori, Decroly, and Binet all had influence at one time or another in Brazil. With the coming of universal education, the influences of Dewey, Kilpatrick, and other North American writers seem more in evidence.

In practical terms, the uppermost goal is universal literacy. National pride is helping to establish an education for the welfare of both the individual and the Nation. Further nationalization of primary education to equalize educational opportunity is one of the methods being used to attain this goal.

The stated aim of the Brazilian Government is to provide education for all children. This desire is expressed in many places, such as in the Constitution, and in periodicals, newspapers, and educational literature. There are no legal restrictions against entering public elementary schools and no legal barriers because of race, color, creed, or economic status. In practice, however, families may not be able to afford to send their children to school, not enough schools exist to accommodate all the children, and not enough teachers are available to teach them. Enforcement of compulsory education law is impracticable.

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Basic Structure

Preprimary Schools

The training of children in preprimary schools is offered by nursery schools (escolas maternais) and kindergartens (jardins de infancia). Both are of 2 years' duration. The former accept children from 3 to 4 years of age and the latter from 5 to 6.

References to preprimary education are found in Articles 14 and 15 of the Organic Act described in chapter III of this bulletin. The majority of schools on this level are privately owned and operated. Public kindergartens usually are attached to teacher-training establishments for practice teaching and observation.

Table 4.—Importance ascribed by Brazilian parents to subjects taught in elementary schools [1]

Subject	Subject is—		
	Important	Less important	Not important
1	2	3	4
Reading	812	5	2
Writing	811	8	
Mathematics	808	8	3
Geography	477	300	42
History	298	500	21
Natural science	392	385	42
Religion	470	301	48
Singing and music	124	357	336
Drawing	287	252	280
Gardening	178	280	364
Horticulture	294	434	91
Physical education	350	302	167
Handwork	287	392	140
Art appreciation	280	357	182
Home economics	562	252	5
Health	759	69	1

[1] Figures drawn from: Ministerio da Educaçao e Cultura. A Escola Elementar e a Formação do Professor Primário no Rio Grande do Sul (Publicação No. 5). Rio de Janeiro: Instituto Nacional de Estudos Pedagógicos (CILEME), 1955. p. 154.

Nursery schools and kindergartens are a recent development in Brazil. During 1947 approximately 1,000 of them had an enrollment of about 60,000. By 1953, 1,907 children were reported as enrolled in 47 nursery schools and 109,151 in 2,066 kindergartens—figures nearly doubled in 7 years.

The Ministry of Education and Culture and the National Child Welfare Department encourage businesses employing women to maintain nurseries and kindergartens, since the need for them becomes more acute as more mothers seek employment in business and industry. Need for preschool establishments in rural areas, where mothers work

largely in agriculture has not seemed so acute, however. Here, the children can be with their mothers while the latter are working.

The methods in the preprimary schools tend to be adaptations of ideas conceived by Montessori and Decroly, although the first schools of this type were followers of Froebel. These schools are expected to become more important in the immediate years ahead.

Elementary Education

The primary schools of Brazil provide for children between the ages of 7 and 12. The Constitution authorizes a 5-year school with 4 elementary years (curso elementar) and 1 supplementary primary year (ensino primário supletivo). Since 1945, many urban schools have changed to the 5-year program, while rural sections tend to retain the traditional 4-year curriculum. Local conditions have made it difficult for some areas to keep children in school for the basic 4-year program—a reason why the Federal Government is taking greater interest in elementary education.

Supplementary education (curso complementar), a 2-year course for persons over 13 years of age, has been designed to permit those who are overage for compulsory education to pursue education appropriate to their physical and mental maturity. The instruction may vary from elementary reading for illiterates to advanced study, and is intended to help open the educational door for persons who have been denied schooling for one reason or another.

Children who complete elementary schooling may enter the secondary school of their choice. Considerable freedom has been offered pupils in recent years to pursue courses compatible with their desires, interests, and aptitudes.

Curriculum

The basic curriculum for the majority of urban schools is quite uniform throughout Brazil. Rural elementary programs tend to emphasize the teaching of reading and writing, sometimes to the exclusion of other subjects. Deviations from the following standard curriculum are permitted and local additions and deletions occur frequently:

1. Mathematics (elements of arithmetic and geometry)
2. Portuguese (the oral and written language, handwriting, composition, grammar, orthography, and literature)
3. Social sciences (geography, history, regional economics, and hygiene)
4. Natural sciences (man, animals, plants, and natural phenomena)
5. Drawing and handwork
6. Singing and basic musical theory
7. Physical education (with emphasis on children's play activities and calisthenics)

Home economics and manual arts often are included in the 5th year. Some localities add horticulture, gardening, art appreciation, and similar studies to the school curriculum.

In a recent study made by the National Institute of Educational Studies in Rio Grande do Sul, 819 parents were questioned on such matters as their judgment on the quality of schools and on the value of certain subjects in the curriculum. Of the total, 212 considered the schools to be very good, 556 good, 22 average, 9 bad, and 20 declined to answer. Table 4 shows responses on the importance of subjects in the curriculum. The results indicate that parents feel that reading, writing, and arithmetic represent the core of the curriculum and also rank health and home economics as high in importance.

Private Schools

Private schools in Brazil traditionally have played an important role in the total Brazilian picture as evidenced by the number of students who attend. In 1956, there were 7,196 private schools with 18,533 teachers, and 565,388 students (out of a combined total of 4,941,986 students for all Brazil). The figures for "school evasion" were placed at 261,396; 119,915; 98,942; 79,060; and 6,075 in grades 1 through 5 respectively for students attending private institutions at the elementary level. Although not quite so high as the comparable figures for dropouts in Brazil as a whole, the picture is similar. Most of the private schools are maintained by religious groups, primarily Catholic. Inspection and supervision come from the appropriate governmental agencies which seek to insure that basic standards are met.

Experimental Schools

School of Application

A modern demonstration elementary school in Salvador, Bahia, known as the School of Application (A Escola de Aplicação), is supported by funds allotted from the Ministry of Education and Culture. It is directed by the Regional Center of the Brazilian Institute of Educational Studies, known as CRINEP. Students are accepted from the area immediately surrounding the school. By and large, they are children from lower income families. A large percentage are Negroes and mulattoes.

The school serves many purposes; a basic one is teacher education. Many teachers are brought from interior schools to receive advanced instruction in educational psychology, teaching techniques, and child study, and to do actual practice teachings.

The school is new, modern, and well equipped. It is intended to illustrate ideal educational practice. For example, since many of the children's homes do not possess good bathing facilities, the plant has shower rooms for boys and girls as part of the program to teach the importance of cleanliness for health reasons.

The school's curriculum has deviated from the usual academic approach to reading, writing, and arithmetic. The needs of children together with their natural interests form its basis. Basic skills are taught as tools for learning rather than as the end product. Teachers emphasize problem solving, first-hand experiences, whole concepts, and developmental tasks and they constantly attempt to relate classroom activities to actual life situations. They use visual aids. They stress learning by doing, having the children plant and care for a garden on school property, for example.

The results of this type of program are evidenced by the children's progress and their interest in schoolwork. The average daily attendance surpasses that for the Brazilian schools as a whole. The author saw happy, busy children and had the opportunity of questioning them as to their future goals. The largest group of boys said they wanted to become chauffeurs. In their economic grouping, being a chauffeur was the ultimate in success because it meant the chance to ride in automobiles and keep them looking nice. The next most popular occupation among these boys was that of mechanic. The girls wanted to become housewives and mothers.

The methods used in the School of Application will be taught to other teachers and administrators. In this manner, the concepts will be spread among others in the Brazilian teaching profession.

Park School

Another development in Salvador is the Park School (Escola Parque) which provides worthwhile activities and learning in arts, crafts, and industrial arts, for children of low economic privilege. Some work also is given in prevocational subjects such as shoe repairing, sewing, and pottery making.

One reason why the Ministry of Education and Culture became interested in such a project is found in the large number of people who are contributing below their potential to the Brazilian economy. Although their children were born in poverty and are living in poverty, the Government hopes, through more adequate schooling and guidance, to help them raise their level of living. By such means, many educators believe these children can grow up to make a higher contribution to the Brazilian economy and to become responsible, tax-paying citizens. They believe that these children, without such means, will be destined to the same type of subsistence living which their parents have had.

The Park School was designed to supplement the activities of the regular elementary school. The children had been spending about 3 to 4 hours in school and then roaming the streets for the remainder of the day. It was felt that these children, if taught worthwhile things, would rather be in an organized program. In practice, the children attending morning classes are invited to participate in the afternoon activities of the school and vice versa.

The result of this experiment has been to fill both sessions of Park School to capacity. The children acquire productive skills and learn about hygiene, group work, and application to duty. A recreational program helps them develop physically. The school is a testimonial for educational opportunity and democratic practice.

The building from the outside resembles a large quonset hut. In the center is a raised portion which serves as the principal's office. This vantage point permits the principal to observe without unduly entering into the activities of the children. The interior is decorated with modern art using an atomic-age theme and the space is arranged to permit activities such as weaving, tapestry making, modelling, fancy-leather work, bookbinding, wood and metal work, basket weaving, needlework, and embroidery.

Guatemala School

The experimental school in Rio de Janeiro, called the Guatemala School, was established by the Ministry of Education and Culture in 1955 under the direction of the Brazilian Center of Educational Research. The philosophy of the school parallels that of the Application School in Salvador. The school aims to (1) Serve as an observation center for elementary school teachers and child guidance officers engaged in advanced study, (2) provide for the examination of elementary school problems, and (3) establish a complete elementary school program including social activities. The project method is the one most commonly used in the Guatemala school. Attached to it is an educational psychology division. A school in Pernambuco has similar purposes and offers the same type of instruction.

Marking and Grading

Pupils in elementary schools, like those in secondary schools and like students in higher schools, normally are rated on a scale of "1" to "10" with few receiving a grade as high as "10." A grade of "4" in a given subject is passing, and an overall average grade of "5" is normally required for promotion.

Elementary School Enrollment

The figures in table 5 indicate steadily increasing elementary school enrollments at 5-year intervals from 1933 to 1953. Enrollments have more than doubled during this 20-year period in Federal, State, municipal, and private elementary schools.[5] Federal enrollments are those of schools maintained for observation purposes in teacher education. The enrollments among the two sexes have remained quite even throughout the years. The most recent statistics (1956) by State and Territory are presented in table 6 showing numbers of elementary schools, teachers, and pupils. These statistics pin-point the teacher certification situation in elementary schools.

[5] There was no census in 1930. The estimated population was 35,673,000 in 1933; 41,236,315 according to the 1940 census, and 51,944,397 according to the 1950 census.

Table 5.—Elementary school enrollments at 5-year intervals: 1933–53 [1]

Year	Boys	Girls	Federal	State	Municipal	Private	Total (columns 2 and 3 or 4–7)
1	2	3	4	5	6	7	8
1933	1,088,644	1,018,975	......	1,393,090	348,523	365,006	2,107,619
1938	1,474,662	1,427,701	......	1,727,131	689,544	485,688	2,902,363
1943	1,573,626	1,502,534	66	1,796,393	778,802	500,101	3,076,160
1948	1,994,410	1,918,761	121	2,375,634	1,038,094	498,392	3,913,171
1953	2,456,860	2,370,521	488	2,996,763	1,321,823	508,297	4,827,371

[1] Figures drawn from: Ministerio da Educação e Cultura. Sinopse Retrospectiva do Ensino no Brasil—1871–1954. Rio de Janeiro: Serviço de Estatística da Educação e Cultura, I.B.G.E., 1956. p. 8.

Table 6.—Number of elementary schools, teachers, and pupils: 1956 [1]

State and territory	Schools	Teachers					Pupils		
		Regents		Assistants		Total	Boys	Girls	Total
		Certified	Non-certified	Certified	Non-certified				
1	2	3	4	5	6	7	8	9	10
State:									
Alagoas	1,256	745	1,152	28	81	2,006	81,134	36,080	67,204
Amazonas	414	302	683	26	36	997	14,489	15,527	30,016
Bahia	5,327	4,376	2,815	98	76	7,365	127,486	135,572	263,058
Ceará	5,659	2,106	5,245	180	49	7,580	89,553	107,545	197,098
Distrito Federal	1,219	4,701	2,042	84	94	6,921	119,958	120,832	240,790
Espírito Santo	1,990	1,703	1,317	66	85	3,170	53,217	46,427	99,644
Goiás	1,633	971	2,097	67	178	3,313	56,685	54,904	111,589
Maranhão	1,419	536	1,606	4	84	2,231	36,143	38,871	75,014
Mato Grosso	762	511	1,305	14	54	1,884	27,970	27,498	55,468
Minas Gerais	10,728	11,836	11,494	1,329	509	25,158	449,691	420,229	869,920
Pará	1,981	846	2,454	......	......	3,300	58,817	57,909	116,726
Paraíba	1,470	671	1,707	105	237	2,720	35,939	46,680	82,619
Paraná	4,691	3,386	5,649	683	718	10,436	126,367	110,295	236,662
Pernambuco	5,441	2,962	4,369	15	2	7,368	110,404	129,602	240,006
Piauí	916	307	907	35	48	1,287	23,464	25,636	49,090
Rio Grande do Norte	1,707	367	2,002	55	104	2,528	38,071	47,358	85,429
Rio Grande do Sul	8,577	5,453	10,156	661	583	16,851	259,810	238,103	497,913
Rio de Janeiro	2,711	3,332	2,966	760	716	7,776	125,921	118,305	244,226
Rondônia	67	62	97	2	12	173	2,501	2,490	4,991
Santa Catarina	3,963	2,229	4,227	95	615	7,160	119,091	106,525	225,616
São Paulo	11,819	28,934	745	2,949	33	32,561	580,126	504,983	1,085,109
Sergipe	927	396	889	70	66	1,420	22,887	25,774	48,661
Territory:									
Acre	90	64	158	2	10	234	3,379	3,727	7,106
Amapá	100	83	97	4	24	208	3,430	3,207	6,637
Rio Branco	6	32	14	......	......	46	718	667	1,385
Total	74,892	76,996	66,154	7,281	4,418	154,798	2,517,241	2,424,745	4,941,986

[1] Figures drawn from: Conselho Nacional de Estatística. Anuario Estatístico do Brasil—1956 (Ano XVII). Rio de Janeiro, 1956, p. 345.

Table 7.—Number of elementary schools, by type of administration and type of location, at 5-year intervals: 1933–53 [1]

Year	Administration				Type of location			Total (columns 2–5 or 6–8)
	Public			Private	Urban	Suburban	Rural	
	Federal	State	Municipal					
1	2	3	4	5	6	7	8	9
1933	...	16,297	5,629	6,044	7,896	4,397	15,677	27,770
1938	...	17,536	11,410	6,960	8,743	5,063	22,070	35,908
1943	2	18,168	13,467	7,306	9,785	4,766	24,389	38,943
1948	5	22,762	19,938	8,824	9,945	5,040	33,804	48,792
1953	5	30,402	26,831	8,813	13,228	5,539	47,288	66,055

[1] Figures drawn from: Ministério da Educação e Cultura. Sinopse Retrospectiva do Ensino no Brasil—1871–1964. Rio de Janeiro: Serviço de Estatística da Educação e Cultura, Instituto Brasileiro de Geografia e Estatística, 1965. p. 8.

The State and Territorial distribution of elementary pupils by grades is found in table 8. It should be kept in mind that schools vary in size from 1-room to multi-classroom structures. During the 20-year span, 1933–53, the number of elementary schools, like the number enrolled in them, doubled.

School Mortality

One of the baffling problems to Brazilian educators is "school evasion," as it is called in Brazil. The percentage of dropouts each year indicates that the holding power of the elementary school is not high. Among the factors reportedly contributing to the high dropout rate are untrained teachers, lack of interest, poor facilities, rigid curriculums, and outside work. Many children do not stay in school long enough to learn the rudiments of reading and writing, much less gain a concept of health and sanitation and of the opportunities in the world about them. Of the nearly 5 million children in elementary school according to table 8, more than 50 percent are enrolled in the 1st grade and roughly 10 percent in the 4th. In the 5th grade (which exists in 8 States only), the figure drops to about 5 percent. Nationwide enforcement of the compulsory education law cannot be the answer until facilities are multiplied to the point where all children can be accommodated.

Table 8.—Enrollment in grades 1 through 5 by State and Territory: 1956 [1]

State and territory	Grade					Total
	One	Two	Three	Four	Five	
1	2	3	4	5	6	7
State						
Alagoas	46, 857	10, 148	6, 569	3, 063	567	67, 204
Amazonas	20, 801	4, 336	2, 659	1, 516	704	30, 016
Bahia	158, 963	47, 794	30, 982	16, 516	8, 803	263, 058
Ceará	148, 408	25, 870	14, 197	8, 628		197, 008
Distrito Federal	91, 427	56, 977	51, 678	40, 708		240, 790
Espírito Santo	56, 180	21, 091	14, 867	7, 806		99, 644
Goiás	72, 229	30, 959	12, 086	6, 335		111, 589
Maranhão	49, 696	13, 498	7, 367	4, 453		75, 014
Mato Grosso	34, 553	10, 407	6, 452	4, 066		55, 498
Minas Gerais	472, 267	198, 249	135, 688	65, 164	552	869, 920
Pará	79, 264	19, 137	12, 007	6, 318		116, 726
Paraíba	56, 513	12, 481	8, 573	5, 052		82, 619
Paraná	132, 862	50, 554	35, 237	18, 209		236, 862
Pernambuco	165, 444	34, 789	22, 486	12, 992	4, 295	240, 006
Piauí	30, 549	7, 525	3, 423	1, 602		43, 099
Rio Grande do Norte	58, 125	15, 336	10, 146	4, 822		88, 429
Rio Grande do Sul	239, 795	112, 784	83, 680	59, 704		497, 913
Rio de Janeiro	141, 192	48, 580	34, 971	19, 533		244, 226
Rondônia	3, 165	784	516	380	166	4, 991
Santa Catarina	117, 182	37, 660	33, 248	17, 308	148	225, 616
São Paulo	440, 614	299, 766	201, 129	134, 848	9, 652	1, 085, 109
Sergipe	35, 825	7, 080	3, 533	2, 173		48, 661
Territory						
Acre	4, 576	1, 164	869	497		7, 106
Amapá	4, 509	803	772	663		6, 637
Rio Branco	640	355	221	169		1, 385
Total	2, 664, 121	1, 075, 792	735, 116	442, 070	24, 887	4, 941, 986

[1] Figures drawn from: Conselho Nacional de Estatística. Anuário Estatístico do Brasil—1956 (Ano XVII). Rio de Janeiro, 1956. p. 345.

Some basic studies were made in 1954–55 on school attendance. First, they showed that children with repeated failures sometimes stayed in elementary school for 7 years. These failures blocked promotion of 68 percent of the pupils enrolled in the 1st grade, 42 percent in the 3d, and 23 percent in the 5th. In fact, elementary school was serving children up to age 14. First-grade rural area enrollment included children from 7 to more than 12 years of age. According to Professor J. Roberto Moreira:

> **Three different conclusions became clear: (1) what we thought could be taught in five years, should take, on the average, seven years; (2) the Brazilian people are showing a greater interest in education, as is made clear by the increasing enrollment and by the fact that even adolescents in rural areas are seeking education in the elementary schools; (3) our system of elementary education is still far from being sufficient for the people's interests and needs.***

* J. Roberto Moreira. The Story of Education in Brazil. *The National Elementary Principal.* XXXVI: 4: 27, December 1956.

Professor Moreira says further that 65 percent of the children enrolled in Brazilian schools will have fewer than 3 years of elementary schooling, and that 60 percent will quit school without learning the basic skills of reading and writing. He believes the principal reason to be the selectivity of the elementary school, which offers a kind of elementary intellectual training that only a few children can understand and master. Professor Moreira points out that about 12 percent of the elementary pupils go on to attend secondary schools and about 8 percent of the secondary school enrollment go on to attend higher education. Some believe that this intellectual training results in selection of the most gifted.

The School Day and Year

The pattern of daily schedules is not uniform throughout Brazil, although but 1 shift is recommended. The Castro Alves School in Salvador has 2 shifts of 4½ hours each. The first runs from 7:30 a.m. to 12 noon; the second, from 12:30 to 5 p.m. In areas where 3 shifts (turnos) are held to accommodate more pupils, the school day has been shortened to 3 and occasionally fewer than 3 hours. The majority of schools have 2 shifts similar to the one at the Castro Alves School.

The school year is divided into 2 periods, with the first starting just after February 15 and closing for winter vacation by June 30. The second period starts about August 1 and closes for summer vacation about November 30.

Six national and religious holidays are recognized by the National Congress and certain other holidays are recognized in individual States. Sunday is a holiday and usually one other day in the week. Some States and municipalities choose Saturday, while the Federal District recognizes Thursday as the second free day.

Medical and Dental Services

Medical and dental services are available without cost in most urban schools. The larger schools have facilities within the school and employ doctors and dentists on contract. A public service is offered through this medium because medical and dental costs ususally are prohibitive for a majority of the Brazilian people. Public and pri-

vate insurance and welfare plans are reported to have relieved the situation somewhat. The majority of people, however, have little chance to participate in an organized medical plan.

School Meals

Studies of the United Nations Food and Agriculture Organization and the World Health Organization showed the majority of Brazilian children to be suffering from malnutrition. Accordingly, a most important auxiliary service now being performed by the Ministry of Education and Culture is that of providing meals for school children. School cooperatives (cooperativas or caixas escolares) are assisting school officials in carrying out the program.

In practice, most schools offer some kind of food service for school children. The need, depending upon the time spent in school, and the amount and quality of the meal vary from place to place. In some places, the meal is a gruel made from wheat, eggs, water, and/or milk (mingau). When a complete menu is warranted and can be financed, the menu may include beans and rice, beef, vegetables, and fruit. Canned or powdered milk is provided daily and sometimes dried milk is obtained from surpluses. Both public and private agencies now are working to extend the benefits of the school meal service to include a greater proportion of Brazilian children. The National Nutrition Committee (CNA) plans, with the help of the Ministry and the Nutritional Institute of the University of Brazil, to extend the school meals program throughout the Nation.

Teaching Materials

The publication of teaching guides, textbooks, and other materials is on the increase. A series of guides have been published and issued to elementary schools on spoken language, social studies, natural science, music, mathematics, and instructive games. The quality of materials has been upgraded in the last few years as a result of a concerted campaign.

School and Community

Although elementary education is a State and local function, the community does not have a great deal to do with school policies. In the past, the needs of the community were not considered in the curriculum; but today the idea that schools are agents of the community is beginning to be evidenced in many localities. Public support is solicited when children perform in programs for parents and when special help is needed for a specific community project related to the school.

School Libraries

School library policy is a local prerogative. The larger schools maintain a library. Its extent tends to be determined by the resourcefulness of the person in charge. Use of books is somewhat limited.

A unique and well-equipped library was established during 1950 in Salvador, Bahia. Called the Monteiro Lobato Children's Library (Biblioteca Infantil Monteiro Lobato) after the Brazilian author of children's literature, it is centrally located in the city and housed in a new building especially built for the purpose.

Chapter V

General Secondary Education

THERE ARE SIX main types of secondary institutions in Brazil: gymnasiums (ginásios), colleges (colégios), and normal, industrial, commercial, and agricultural schools—under the control of the Directorate of Secondary Education (Directoria do Ensino Secundário) in the Ministry of Education and Culture. Separate sections in this Directorate have functions relating to administrative and teaching personnel, buildings and school equipment, finance and school records, inspection, and orientation and assistance. This last section supervises pupil, medical, and social plans, literary associations, school cooperatives, and the like.

Improvement and Extension

The Directorate of Secondary Education inaugurated the Campaign to Improve and Extend Secondary Education (Campanha de Aperfeiçoamento e Difusão do Ensino Secundário, or CADES) under Decree No. 34,638 of November 17, 1953. This campaign is interested in seeing that every possible means be used to advance and extend secondary education throughout the Nation. It is concerned with establishing in-service training for teachers, technicians, and administrators, and with surveying needs for school buildings. Among the many campaign objectives written into Decree No. 34,638 are the following: To improve textbooks, to establish cultural missions which will provide isolated schools with assistance in educational methods and with materials, to promote use of audiovisual aids and exchange of persons both nationally and internationally, to provide scholar-

ships, and to broaden opportunities for children to attend secondary schools.

Although presenting certain points relating to secondary education in general, this chapter deals primarily with 2 of the 6 main types of secondary schools—the gymnasiums and the colleges or institutions at the intermediate level that give mostly academic or general classical instruction. The other types of secondary establishments are discussed in subsequent chapters on specialized education.

Ginásios and Colégios

The literal English translations—gymnasium and college—for *ginásio* and *colégio* do not reflect the precise level of these institutions in terms of education in the USA. Some translate *ginásio* as junior high school and *colégio* as high school. Although it is true that the age groups attending *ginásios* in Brazil and junior high schools in the USA, and *colégios* in Brazil and high schools in the USA are similar, the offerings and the nature of the two types of schools differ widely as between the two countries. With these differences in mind, the Portuguese words—*ginásio and colégio*—will be used throughout the Bulletin to denote, respectively, lower and upper secondary schools in Brazil offering general or classical programs of education.

The academic secondary schools have had an esteemed role in Brazilian society. Traditionally, they have represented the stepping stones to higher education and social distinction. Private in origin, they were in a position to select their student bodies. Although nearly 80 percent of the secondary schools are privately owned today, they now serve a public function in accordance with directions emanating from Brazil's National Congress and her Ministry of Education and Culture. And there has been a gradual change in the nature of secondary schools under the publicly oriented philospophy of recent years and the aim to have them serve a more democratic function. Nevertheless, the traditional feeling among the general population that financial and social pinnacles are reached by the ginásio-colégio-university road may be reflected in the much larger enrollment in ginásios and colégios by comparison with enrollments in other types of secondary schools.

Objectives

For centuries, tradition defined the aims of secondary schools, and curricular changes were relatively slow in developing. The tripling of enrollments, the wider socioeconomic grouping of pupils, the increase in organized agriculture, commerce, industry, and labor, and the evolving concepts of democracy and democratic action are all factors contributing to changes in the role of the secondary school.

Chapter I of the Secondary Education Organic Law outlines basic intent for secondary schools. They are to build upon the foundations taught in primary schools, develop an insight into the principles of patriotism and humanism, and provide a basis upon which additional learning may be acquired. Chapter IV and V of the law deal with physical education and military education and in each instance, the law requires qualified males to receive instruction. Article 21 of chapter VI makes it clear that the study of religion is an integral part of the secondary school curriculum and that the content of the instruction is to be fixed by appropriate ecclesiastical authority.

In the realm of moral and civic responsibilities, each school is obligated to instruct its students concerning the destiny of man, the problems of the Brazilian people, and the mission of the Brazilian people in relation to that of other peoples. Principles for developing morality, discipline, and a personal sense of responsibility are detailed in the law. Stress is given to programming activities to provide an environment for the development of Brazilianism and civic responsibility. Specific courses, such as Brazilian history and geography, with their emphasis on vital national issues, are intended to develop a sense of patriotism.

The basic law provides for a system of counseling. To date, counseling functions have been somewhat limited. As the larger schools employ counselors, vocational and personal counseling—as distinct from academic counseling, since the curriculum is prescribed—is becoming more important. The pupil's school history, maintained in booklet form, may be used for counseling purposes.

Beyond the aims defined in law are those of Brazilian educators as revealed in their educational literature. It is apparent that objectives are being redefined and that educators in general are responding to the challenge presented by the reappraisal. A more critical analysis of pupil needs, aptitudes, and desires is being made. Some thought is being given to permit local adaptations in the curriculum.

Experimentation at research centers, institutes of education, and experimental schools is producing new ways to improve schools. It is expanding school objectives and leading to curricular changes.

Cycles of Instruction

The present organizational pattern of the ginásio and colégio was established by the Secondary Education Organic Law, appearing on April 9, 1942 as Decree-law No. 4,244. This law, which is claimed to be resulting in more uniformity among secondary schools, established the same cycle pattern for all intermediate schools—a basic course of 4 years followed by an advanced cycle of 3 years. In the classical schools, the 4-year course is the ginásio program and the advanced program is the colégio curriculum. The latter has two programs, the scientific and the classical.

The basic and the advanced cycles are akin in objectives, function, curriculum, and type of pupil enrolled. In many instances, the same building contains both cycles and the same faculty teaches both groups of pupils. Some localities have coeducational schools; others have separate schools for girls and boys. Coeducational schools usually offer domestic science for girls in the 3d and 4th grades of the ginásios and give special emphasis to the personality and mission of the woman in the home.

The 4–3 cycle is intended to facilitate articulation by opening the way for lateral transfer from one type of secondary school to another and for more streams of admission to higher levels of schooling. Law No. 1,821 of March 12, 1953 authorizes such transfer and opportunities for promotion. For the first time, the student could exercise increased freedom of choice at advanced levels without serious penalty because of the type of secondary school he had attended. Although the ginásios and colégios provide the main sequence of academic studies for admission to the university, they now are not the only means for advancement to an institution of higher learning.

Admission Requirements

The candidate for entrance to the ginásio or first cycle, must be a graduate of the elementary course. He is required to demonstrate by means of entrance examination that he has the intellectual aptitude for the more advanced schooling. He must be 11 years of age before the 31st day of July following the entrance examination. Vaccination is required and the pupil must be free of contagious disease. The entrance examination is given twice a year—in December and February. Subject-matter areas include Portuguese, mathematics, geography, and history.

The examination in Portuguese consists of questions in grammar, assorted passages of printed material to be edited, and a 15-line excerpt from the writings of a contemporary Brazilian author which the pupil writes from dictation. Ten questions involving simple problems in arithmetic are asked in the mathematics test. About 40 questions are asked on Brazilian geography and history. The written part of the examination allows 90 minutes each for Portuguese and mathematics and 60 minutes for each of the other subjects. The examiner for each subject is given a minimum of 5 and a maximum of 15 minutes for oral interrogation.

Matriculation in the colégio, or second cycle, is dependent upon completion of the ginásio or of some other type of intermediate program. If the candidate has a deficiency in a subject-matter area, he is required to take the course or courses not completed.

Pupils in secondary schools are classified as regular pupils (alunos regulares) or auditors (alunos ouvintes). The latter are enrolled for the purpose of erasing deficiencies in their records.

Enrollment Trends

The upward trend in number of ginásios and in their teachers and pupils from 1943–54 is reflected in Table 10. There were almost two-and-a-half times as many ginásios in 1954 as in 1943, with slightly more than two-and-a-half times as many pupils enrolled. The most impressive increase in numbers of pupils occurred from 1954 to 1956 when initial enrollments climbed from 463,687 to 537,096. As shown in Table 11, presenting 1956 comparative figures for the various types of Brazilian secondary schools, this latter number represents approximately 65 percent of the pupils initially enrolled in all the country's secondary schools that year. Thus, in terms of enrollment, the ginásio is the most popular type.

Figures pertaining to the colégio also show increases since 1943. After passage of the Secondary Education Organic Law in 1942, the number of pupils enrolled in the scientific course increased from 18,495 in 1943 to 58,588 in 1954 and in the classical course from 3,417 to 9,801 during the same period (table 12). About 10 percent of the total number of secondary school students enter the colégios. About one-fourth of those entering the colégios graduate.

Main reasons for dropouts appear to be financial (inability to pay fees and need for gainful employment), lack of interest, and academic failure. Although tuition scholarships are available to stu-

Table 9.—Number of ginásios and teachers, and number of students registered, enrolled, attending, promoted, and graduated: 1943, 1948, 1953, and 1954 [1]

Year	Schools	Teachers	Students				
			Registered	Enrolled	Attending	Promoted	Graduated
1	2	3	4	5	6	7	8
1943	790	12,097	178,952	169,780	157,495	145,228	27,406
1948	1,159	16,656	278,982	262,063	240,482	217,954	38,461
1953	1,717	24,484	440,655	409,571	371,518	322,894	58,093
1954	1,785	25,453	463,667	430,987	390,996	339,770	60,439

[1] Figures drawn from: Ministério da Educação e Cultura. Sinopse Retrospectiva do Ensino no Brasil—1871-1954. Rio de Janeiro: Serviço de Estatística da Educação e Cultura, Instituto Brasileiro de Geografia e Estatística, 1956. p. 17.

Table 10.—Number of secondary schools, teachers, and students, by type of school: 1956 [1]

Type of school	Schools		Teachers		Students			
					Initially enrolled		Graduated in 1955	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1	2	3	4	5	6	7	8	9
Ginásio	2,007	39.18	30,272	44.68	537,096	65.17	68,592	54.35
Colégio	739	14.43	11,329	16.72	81,923	9.94	17,164	13.60
Commercial:								
Basic	383	7.48	4,373	6.45	65,264	7.92	6,599	5.23
Technical	610	11.91	6,183	9.13	58,371	7.08	12,453	9.87
Industrial	402	7.85	5,931	8.75	17,504	2.12	2,646	2.10
Agricultural	54	1.06	546	.81	3,098	.38	834	.66
Regional Normal	212	4.14	1,748	2.58	12,380	1.50	2,196	1.74
Normal	716	13.96	7,368	10.88	48,471	5.88	15,727	12.45
Total	5,123	100.00	67,750	100.00	824,107	[2] 100.00	126,211	100.00

[1] Figures drawn from: Ministério da Educação e Cultura. Sinopse Estatística do Ensino Médio—1956. Rio de Janeiro [no date]. p. 7.
[2] Figure rounded off.

dents proving need, youth in lower income groups find it difficult to obtain necessary additional support to sustain themselves while in a pupil status.

Curriculum

The program of studies for secondary schools, as outlined in the basic law, tends to concentrate in languages, sciences, and philosophy. It requires 23 to 28 hours of class work per week.[1] The list of courses

[1] Ministério da Educação e Cultura. Lei Orgânica do Ensino Secundário e Legislação Complementar. Rio de Janeiro: Departmento de Imprensa Nacional, 1955. p. 328–329.

and the hours per week are shown in tables 12 and 13 for the colégio and ginásio respectively. Mathematics and Portuguese receive the greatest time allotment with an average of 3 hours per week for the entire 7 years.

An outline is available for each subject in the curriculum. For example, the outline for the Brazilian history taught in the first year of the ginásio is as follows: (1) Discovery; (2) the indigenous Brazilian, his customs and his first contacts with Europeans; (3) colonization, the captaincies, and the governor general; (4) geographical expansion, including exploration parties; (5) defense of the country, including the fight against the French and the Dutch; (6) manifestations of National sentiment; (7) the Brazilian Kingdom; (8) Independence; (9) Imperial Brazil; and (10) Republic of Brazil, including the contemporary phase.

In the second year, American history is taught in the following sequence: (1) America before Columbus; (2) discovery, exploration, and conquest of America; (3) Spanish colonial America; (4) English colonial America; (5) Portuguese colonial America; (6) the USA, its development; (7) Hispanic-American Nations—their emancipation; (8) independent Brazil; (9) Nations of the New World—their development in the 19th Century; and (10) contemporary America.

Table 11.—Number of colégios and teachers, and number of students registered, enrolled, attending, promoted, and graduated. 1943, 1948, 1953, and 1954 [1]

Year	Schools	Teachers	Students				
			Registered	Enrolled	Attending	Promoted	Graduated
1	2	3	4	5	6	7	8
Scientific:							
1943	238	2,964	21,419	18,496	17,178	12,434	....
1948	342	4,836	48,645	44,021	39,987	36,345	9,516
1953	526	7,427	62,516	55,284	50,351	45,864	12,985
1954	537	7,896	66,277	58,588	53,380	48,305	13,140
Classical:							
1943	156	1,994	4,080	31417	3,162	2,436	....
1948	162	2,230	8,265	7,487	6,686	6,309	1,786
1953	198	2,743	10,364	9,278	8,368	8,016	2,321
1954	188	2,671	10,986	9,801	8,830	8,488	2,390

[1] Figures drawn from: Ministério da Educação e Cultura. Sinopse Retrospectiva do Ensino no Brasil—1871–1954. Rio de Janeiro: Serviço de Estatística da Educação e Cultura, Instituto Brasileiro de Geografia e Estatística, 1956. p. 18.

Table 12.—Minimum academic program for the colégio [1]

Subject	Hours per week, by year, in programs having—								
	Greek			No Greek			Science		
	First year	Second year	Third year	First year	Second year	Third year	First year	Second year	Third year
1	2	3	4	5	6	7	8	9	10
Languages:									
Portuguese	3	3	3	3	3	3	3	3	3
Latin	3	3	3	3	3	3	.....	.....	.....
French	*3	*3	.....	3	2	.....	2	2	.....
English	*3	*3	.....	3	2	.....	3	2	.....
Spanish	2	.....	.....	2	.....	.....	2	.....	.....
Greek	3	2	3	.....	.....	.....	.....	.....	.....
Sciences and philosophy:									
Mathematics	3	2	2	3	3	3	3	3	3
History of Brazil	.....	2	2	.....	2	2	.....	2	2
General history	2	2	2	2	2	2	2	2	2
General geography	2	2	.....	2	2	.....	2	2	.....
Geography of Brazil	.....	.....	2	.....	.....	2	.....	.....	2
Physics	.....	2	2	.....	2	3	3	3	3
Chemistry	.....	2	2	.....	2	3	3	2	3
Philosophy	.....	3	3	.....	3	3	.....	.....	3
Natural history	.....	.....	3	.....	.....	3	.....	3	3
Arts:									
Drawing	.....	.....	.....	.....	.....	.....	2	2	3
Physical education	2	2	1	2	2	1	2	2	1
Total	23	28	28	23	28	28	27	26	28

[1] Figures drawn from: Ministerio da Educação e Cultura. Lei Orgânica do Ensino Secundario e Legislação Complementar. Rio de Janeiro. Department de Imprensa Nacional, 1956. 207–208.
*English or French.

School Day and Year

The school day for the secondary schools is not uniform. In areas where demand for enrollment is high and facilities are meager, it has become necessary to hold multiple sessions to accommodate greater numbers. The duration of the shift varies from 2 to 5 hours depending upon local conditions.

The school year is divided into two periods of instruction, with the first beginning on or about March 15 and closing for winter vacation about June 15. The second instruction period starts about July 1 and ends about Decembebr 15. Thus, the vacation periods consist of about 2 weeks in the latter half of June and 3 months from the middle of December to the middle of March. Examination schedules reduce the actual instruction period by about 2 weeks just before each of the vacation periods.

National holidays and recognized State and religious holidays are observed. Various other special days are not recognized as school holidays because of their great number.

Table 13.—Subjects and number of hours per week in the ginásio, by year[1]

Subject	Hours per week			
	First year	Second year	Third year	Fourth year
1	2	3	4	5
Languages				
Portuguese	3	3	3	3
Latin	2	2	2	2
French	3	2	2	2
English		3	3	3
Sciences and philosophy				
Mathematics	3	3	3	3
Natural science			2	3
History of Brazil	2			
General history		2	2	
General and Brazilian history				2
General geography	2	2		
Geography of Brazil			2	2
Arts				
Manual training	3	2		
Drawing	1	2	2	1
Singing	2	1	1	1
Physical education	2	2	2	2
Total	23	24	24	24

[1] Figures drawn from Ministério da Educação e Cultura. Lei Orgânica do Ensino Secundário e Legislação Complementar. Rio de Janeiro, Departamento de Imprensa Nacional, 1955. p. 307.

Teaching Methods and Techniques

Classroom emphasis in the past has been on encyclopedic learning or accumulation of facts. Today, the lecture predominates, with recitation and discussion used to a degree. Laboratory instruction has been confined primarily to physics and chemistry courses.

Audiovisual techniques are not in widespread use. Pictures, bulletin boards, and learning displays are less common in Brazilian schools than in those of the U.S.A., but blackboards are common. In general, teachers are not trained specifically in room maintenance as a part of classroom management.

In recent years, however, a sustained effort has been apparent to shift from an encyclopedic approach to learning to an approach based on education in a broader sense. The needs of the individual personality in terms of preparation for contemporary life are being considered. A character-forming ideal is being substituted for the stepping-stone sequence to advanced studies. Thus, the goal of learning is to become a means to an end rather than an end itself. New types of experimentation are pointing the way to improved teaching methods and increased participation of the pupil in active learning

experiences. The results, it is claimed, are encouraging a movement toward expanded use of group activities and socialized recitation.

The subject-matter of each course is defined by law. Teaching techniques are less precisely defined. Generally speaking, teachers are not necessarily schooled in treatment of the total personality. But in due time, the impact of inservice programs now operating is expected to be widely felt.

Examinations and Grading

Required for each discipline are two partial examinations (provas parcias) a year, in June and November. Except for examinations in such areas as vocal music, manual arts, and design, these examinations are written. They are given by appropriate classroom teachers during a 2-week period when no classes are scheduled. The first examination covers the period from March to June and the second, from August to November.

Final examinations (provas finais) are administered during the first 2 weeks in December. They cover the mental disciplines in the curriculum and exclude those such as physical education and singing. These examinations are oral and are given by an examining board (banca examinadora) composed of 2 teachers in the subject-matter area and 1 appointed by the principal and approved by the inspector. Each examiner has a minimum of 5 minutes and a maximum of 10 to question the candidate. This procedure is used for each subject in which the pupil is tested.

No person may take the final examination if absences exceed 25 percent of the regular classes or if the average of the two semester grades is lower than "3". Make-up examinations are given in February for pupils unable to take the regularly scheduled examinations in December. Serious illness or death in the immediate family is considered a legitimate excuse for inability to take final examinations on regular schedule.

Grading is by number from "1" to "10" with "10" being high. A monthly evaluation by the teacher (nota anual de exercícios) and the average of the two semester examination grades are averaged to reach the final grade (nota final). A passing grade is "4" or more. Another grade is given which is the average of all the final grades in the various subjects (nota global). This grade must be "5" for promotion. The same procedure is followed for promotion to the next higher grade and for diploma recommendations at the end of the established course.

Certificates of Graduation

Those students who complete the 4-year course in the ginásio are awarded a Ginasial License Certificate (Certificado de Licença Ginasial). Colégio graduates receive either the Classical or the Scientific Certificate (Certificado de Licença Classica or Certificado de Licença Científica).

Model Schools

Colégio Pedro II

The school which has set the example for secondary education in the Nation is named after the benevolent ruler Dom Pedro II. Founded on December 2, 1837, Colégio Pedro II was divided in 1857 into two schools—one for resident students (internatos) and the other for those who lived at home (externatos). The two schools, rich in history, are located in separate buildings. They are supported and maintained by the Federal Government.

Since its founding, Colégio Pedro II has had a restricted clientele and emphasized a rigid discipline in the arts and classical studies. Traditions have been held sacred much as in the English Public School. Until recently, the curriculum in each Colégio Pedro II school was the same as that prescribed for secondary schools throughout the Nation. The Ministry of Education and Culture is, however, formulating revisions not yet tried at Colégio Pedro II.

Although the original structures are still in existence, an entirely new plant is being built for the residence school. This new plant has been planned to permit use of the latest methods in teaching and laboratory work and of a more flexible type of curriculum. The school is expected to be a leader in experimentation.

Colégio Novo Friburgo

This institution represents another force in Brazilian education. An experimental school, established in 1950 and supported by the Getúlio Vargas Foundation, it takes its name from the small city where it is located. Colégio Novo Friburgo accepts pupils from all

parts of Brazil; pupils and faculty live at the school with homes provided on school property for faculty members with families.

Each year by vote of the faculty, the position of director of the school is rotated, with every teacher thus having the opportunity to become director. The faculty meets regularly to coordinate activities and discuss school problems and their possible solutions.

Teachers use a unit approach to teaching. Each teacher prepares appropriate unit plans for his subject specialty and attempts to enrich them with as many learning aids as possible. Emphasis is placed on student activity and audiovisual aids are employed. Classrooms are decorated with pictures, posters, newspaper clippings, maps, graphs, and other materials. Pupils are encouraged to participate in discussions, demonstrations, and other classroom activities. Classroom informality is encouraged and considerable freedom is given for individual pupil initiative. Group activities are also encouraged, especially in extracurricular programs.

Although subjects in the Colégio Novo Friburgo curriculum are essentially the same as those in the curriculums of other secondary schools, clubs have been formed for music, language, science, journalism, stamp collection, airplane modeling, and dramatics. These clubs complement classroom instruction and provide educational diversion and entertainment for the pupils through opportunities for self-expression and resourcefulness. Sports have been added to the regular physical education program, thus affording opportunities for active participation and competition.

Activities are housed in modern buildings. The newest were constructed for specific purposes, such as physical education. Each dormitory has a room mother who looks after pupil needs. Medical and dental facilities are provided and religious services are included in the daily program.

Pupils and teachers appear enthusiastic about their school and a cohesiveness is evident in its operations. This school, with an attached elementary school designed for experimental purposes, bears careful observation. It may have a decided impact on secondary education in general in Brazil, and although the undertaking was considered costly, the per-pupil cost can be expected to diminish in time.

Textbook Commission

The National Education Textbook Commission (Commissão Nacional do Livro Didático) establishes policy relative to textbook review and adoption. It is composed of 15 members appointed by the

National President and operates under the direction of the Ministry of Education and Culture. By means of subcommissions, the commission oversees the entire textbook operation and also supervises the dissemination of books.

Any person may submit books for review and possible acceptance. Certain criteria have been set up to prevent authorization of books which are subversive or which incite hate against any race or foreign country, propose an ideology contrary to democratic principles, berate religion or religious sects, attack the family or the sanctity of marriage, or arouse sentiments of superiority or inferiority of one region of the country in relation to another. Other criteria relate to style, grammar, language, propaganda, authenticity, and the like.

Books authorized by the Commission are listed semimonthly in the Official Diary (Diário Oficial) according to grade level and instructional area and in alphabetical order by author. Each authorized book is numbered, registered, and approved for use by the Ministry of Education and Culture. The commission also has responsibility to recommend outstanding books published in foreign countries which merit translation and possible use.

Scholarships

Many scholarships (bôlsas de estudo) have been provided for secondary education. For example, the National Fund for Secondary Education awards, on the basis of need, scholarships ranging from a portion of the fees to board, room, and tuition. Depending on circumstances in each case, they usually are awarded to pupils about to enter secondary school and are paid each year thereafter as long as the pupil performs satisfactorily. Assistance may be discontinued on disciplinary grounds as well as for failure to meet academic standards. In exceptional cases, scholarships are granted initially to worthy pupils already in the more advanced classes.

The type of institution—Federal, State, or private—is immaterial. A pupil may enroll in the institution of his choice if it has accommodations for him. Screening for scholarships is done by a Local Educational Assistance Commission (Commissão Local de Assistencia Educacional) in accordance with regulations of the Ministry of Education and Culture. Public examinations are a factor in selection. In this way, many young people who, for financial reasons or otherwise, could not go on to secondary school, have an opportunity to become better educated.

Chapter VI

Schools for Commerce and Industry

OWING TO Brazil's marked industrial expansion of the past two decades the country has experienced an acute demand for commercial and industrial education. This development, according to Brazilian educational leaders, is another development which has pointed up the need for extending educational opportunities to an increasing number of people. Industrialists and businessmen have united forces to lend support for schooling at all levels, but with emphasis at the elementary, commercial, and industrial levels. The Government is being assisted by private agencies in its educational problems.

The main impetus took place during World War II, when Brazil chose to build an industrial economy. The decision was made in face of restricted international trade, even though noticeable expansion had been evident between World Wars I and II. The internal market for Brazilian-produced goods was stimulated by higher tariffs, and a campaign for national use of goods marked *Indústria Brasileira* was started. When local technology was inadequate, foreign companies were invited to contribute. Many North American companies accepted the invitation to manufacture and sell.

The development of industry in Brazil shows a marked contrast between early and recent periods. Industry was practically at a standstill during the colonial period; in fact, the Portuguese Government prohibited manufacturing. Brazil was an exporter of raw materials and an importer of manufactured products. Freedom to industrialize was granted in 1808, and shipping ports were permitted increased liberties. The adoption in 1844 of tax payments on importations to

Brazil favored industrial development. The early years of the Republic, after 1889, saw many new industrial establishments constructed. The period between the two World Wars was a time of rapid development, but the contemporary period has eclipsed all others in terms of commercial and industrial growth and importance.

New developments in the education of people for trades, industry, and commerce have results. Some appeared before 1942, but significant changes came with and after the Industrial Education Organic Act, Decree-Law No. 4,073, of January 30, 1942. The same type of basic pattern was established for Commercial education by Decree-Law No. 6,141 of December 28, 1943. These two laws have defined the scope and guiding principles for commercial and industrial schools. There was little uniformity among such schools before the issuance of these laws, and purposes of State laws did not coincide with those of the Federal Government.

As sustained efforts brought improvements in business and industry, they also brought improvements in the personal status of the individual worker, and in his personal knowledge and skills. The cultural tradition had not always accorded a place in upper social circles for the factory worker or skilled artisan. Even though the majority of school children might prefer to follow an academic career leading to preferred status, an increasing number of students are now turning their interests to industrial and commercial pursuits. This indication has seemed more noticeable since transfer was made easier among the various types of secondary education. It is now possible for graduates of the commercial and industrial schools to choose their college careers. Some students express a feeling of security in having prepared for a practical vocation—just in case something happens to interrupt or rule out college preparation. Active encouragement is being given to guide capable boys and girls into business and industrial pursuits.

Industrial Education

General Structure

Industrial education, a branch of the Brazilian schools at secondary school level, is organized into two cycles. The first cycle embraces the training of semi-skilled workers (2 years), apprenticeship train-

ing (2 to 4 years), and basic industrial instruction (2 to 4 years). The second cycle comprises the training of teachers and advanced technical instruction.

Three courses are available in industrial education: ordinary courses (cursos ordinários) of vocational training, extraordinary courses (cursos extraordinários) designed to provide for improvement and specialization in skills, and unscheduled courses (cursos avulsos on recent developments, discoveries, and inventions. The ordinary training in the first cycle looks to the needs of the semi-skilled, apprentice, industrial, and educational workers. The extraordinary training is concerned with specialization, improvement, and continuation. The unscheduled courses are concerned more with up-to-date developments and discoveries.

The preparation of teachers for industry usually requires an additional year of study at an advanced level. This type of instruction is also geared for administrative personnel. Many variations of the industrial education program have been established in order to permit part-time and full-time attendance. This flexibility offers opportunity for advancement for beginners as well as for experienced workmen, and in accordance with their aptitudes, desires, and available time. Other opportunities are offered in extension courses for those willing to do additional work for self-improvement.

Types of Schools

Two main types of industrial schools receive direct and continuing support from the Brazilian government. These are industrial and technical schools which offer a combination of academic work and practical shop training. The industrial institution offers a 4-year course in shop training for students between the ages of 12 and 18 who have finished the primary school. Technical schools give 3 years of training in shop and technical education. This level of instruction may be comparable to that of the high school in the United States.

A third type of school is the apprenticeship type. Although the federal schools do offer some apprenticeship training, the function has been mostly assumed by SENAI (Serviço Nacional de Aprendizagem Industrial)—the National Service of Industrial Apprenticeship. (Owing to the importance of this phase of instruction in Brazil, it will be treated separately.)

Aims and Principles

When the government established the foundations of industrial instruction, certain basic aspirations were written in the law. In essence, education was to realize the needs of the worker from the standpoint of his professional preparation, general education, and character building. Management was to benefit by the receipt of sufficient and adequate workers, while the nation as a whole would profit by the mobilization of a more competent corps of builders for culture and the economy.

Certain fundamental principles guide Brazilian industrial education: The trades and technical subjects shall be taught in conjunction with practical application. The adaptability of the workers is safeguarded in their training by avoiding premature and excessive specialization. Every branch of industrial education is obligated to include those subjects in the curriculum which offer the student a general and cultural value. Industrial schools are expected to extend educational facilities to workers regardless of their educational background. This type of education is available to men and women, but women shall not be permitted to do work which might be injurious to their health.

Six-point Service

The national program of industrial education provides for a six-point service of education through trade training, health protection, citizenship, recreation, food, and clothing. The trade education comprises a variety of offerings in the curriculums. Health care is provided in each Federal trade school by nursing facilities, medical, and dental services. Each student receives a physical and dental examination at the beginning of each school year, and such treatment as is needed during the year. Citizen training is interwoven in various activities. Recreation is offered in the form of sports, dramatics, band, orchestra, and choral work, physical education and military drill are included. Clothing is an important item in Brazil because many students come from families with limited means, and for this reason the authorities furnish uniforms, shirts, and work clothes. Additional clothing items and toiletries are also often furnished. All meals are furnished to students living at the school and at least one meal is given to the others.

Types of Offerings

Examples of industrial and vocational courses, by specific area, for the education of workers and foremen are the following: Foundry, metalwork, boilermaking, machine mechanics, electrical machinery and installation, electrical and telecommunication apparatus, precision instruments, automobile mechanics, aviation mechanics, carpentry, jewelry, tailoring, dressmaking, millinery, printing and bookbinding, engraving, fishing, thread and textile manufacturing, and painting.

Technical instruction covers machine and motor construction, electricity, building construction, road and bridge building, technical drawing, interior decorating, aeronautical construction, industrial chemistry, mining engineering, metallurgy, applied arts, television and radio repair and construction, and similar areas.

The general subjects include such courses as Portuguese, mathematics, French or English, world history, geography, physics, chemistry, natural history, industrial accounting, industrial hygiene, organization of work, drawing, resistance of materials, applied mechanics, electricity, and other subject-matter related to industrial education.

Students take choral singing until age 18 and physical education until age 21. Male students take premilitary drill; female students are required to study home economics. The foregoing list is not inclusive, and each area is broken down into subject matter which is related to each course.

Diplomas and Articulation

The graduates of industrial schools, awarded diplomas as skilled workers in their specialty, are called *artífices*. The technical school graduates receive a technical diploma in their specialty called *técnico*. Those who qualify as teachers receive a *diploma de professor*.

The vocational courses articulate with the elementary schools, and the technical with secondary education of the first cycle. A graduate of the advanced technical course of the second cycle, comprising three or more years, may choose to enter an institution of higher learning. Before 1953, a graduate of industrial or commercial courses could enter an institution of higher education only in those fields related to his preparation, but the liberalization now offers a broader choice.

Occupational Surveys

The needs of instruction for trades and industries are ascertained by means of occupational surveys. Job analyses are made for each trade so that appropriate instructional materials and areas can be determined. A comprehensive program of trade and job analysis has been completed for each of the occupations taught in the trade schools of Brazil.

Statistical Data

The unusual rise numerically in Brazilian industrial education and the increased emphasis on this type of instruction are the result of the phenomenal rise in the number of industries. Table 14 shows that in 1933 there were 40 industrial schools, staffed by 327 teachers, with an enrollment of 3,936 students. The average attendance in 1933 was 2,874, with 317 persons graduating. In 1954, the number of these schools had increased to 421, with 7,324 teachers and 17,431 students. There were 19,102 students who registered in 1954, but 15,420 actually attended throughout the year and 2,660 graduated. The figures show a steady increase from 1933 to the present, but with a marked jump beginning in 1943. This is due to the Organic Law, which gave new meaning to industrial education by dignifying it. About the same time Brazil made the decision to become an industrial nation on a full-scale basis.

Table 14.—Number of industrial schools and teachers, and number of students registered, enrolled, attending, promoted, and graduated: 1933, 1938, 1943, 1948, 1953, and 1954 [1]

Year	Schools	Teachers	Students				
			Registered	Enrolled	Attending	Promoted	Graduated
1	2	3	4	5	6	7	8
1933	40	327	3,936	----------	2,874	----------	317
1938	49	448	3,466	3,073	2,635	1,868	260
1943	316	3,387	16,564	14,553	13,567	11,266	1,757
1948	384	5,099	18,091	16,535	15,053	12,337	2,490
1953	414	6,242	18,845	16,913	15,290	12,586	2,804
1954	421	7,324	19,102	17,431	15,420	13,021	2,660

[1] Figures drawn from: Ministério da Educação e Cultura. Sinopse Retrospectiva do Ensino no Brasil—1871-1954. Rio de Janeiro: Serviço de Estatística da Educação e Cultura, Instituto Brasileiro de Geografia e Estatística, 1956. p. 20.

Table 15 gives the number of schools, students, and teachers by type of instruction and by State and Territory. The under-developed areas are recognized because of the small number of their schools. These figures do not include those of the SENAI schools, but rather those of Federal, State, and municipal dependency. Of the total number of schools, in the basic cycle, 140 are Federal, 114 belong to the States, 13 are municipal, and 27 are private. The schools for foremen show 2 Federal, 51 belonging to the State of São Paulo, 2 in the city of São Paulo, and 2 private schools, also in São Paulo. The technical cycle schools total 51, with 20 Federal, 11 State, and 20 private. There are no municipal schools of this type. The State of São Paulo has 109 of the total 294 establishments of industrial education in Brazil, with the Federal District and Rio Grande do Sul following with 24 each.

Table 15.—Number of industrial schools (basic, foreman, technical), and number of students and teachers, by State and Territory: 1956 [1]

State and territory	Basic			Foreman			Technical		
	Schools	Students	Teachers	Schools	Students	Teachers	Schools	Students	Teachers
1	2	3	4	5	6	7	8	9	10
State:									
Alagoas	8	220	72						
Amazonas	8	293	154						
Bahia	14	504	200				3	107	57
Ceará	4	256	11						
Distrito Federal	24	1,915	605				8	380	139
Espírito Santo	6	241	8						
Goiás	8	146	120						
Maranhão	6	259	126				3	13	46
Mato Grosso	3	109	6	2	6	7			
Minas Gerais	6	211	110				5	224	60
Pará	5	153	63				1	34	14
Paraíba	6	133	74						
Paraná	8	318	200				4	36	72
Pernambuco	12	728	104				2	22	18
Piauí	5	269	57						
Rio Grande do Norte	1	181	20						
Rio Grande do Sul	24	827	528				5	108	86
Rio de Janeiro	18	1,250	358				1	51	20
Rondônia									
Santa Catarina	7	148	96						
São Paulo	109	6,130	1,789	55	604	434	19	1,318	278
Sergipe	7	207	11						
Territory:									
Acre									
Amapá	3	103	32						
Guaporé									
Rio Branco									
Total	294	14,601	4,709	57	610	441	51	2,293	790

[1] Figures drawn from: Ministério da Educação e Cultura, Sinopse Estatística do Ensino Médio—1956. Rio de Janeiro: [no date]. p. 13–15.

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School Buildings

Most of the industrial school buildings are well-lighted, modern structures. They give instruction in general educational subjects, shop work, and technical subjects. They provide quarters for a doctor's and a dentist's office and a sick bay, and space for the director's office, teachers' conference room, teachers' study room, students' council room, a business office, a storeroom for supplies and equipment, an auditorium, gymnasium, dormitory, library, exhibit room, museum, laboratories, a kitchen, and a dining room. Space is also allotted for an athletic field. An extensive building program is under way at present to replace the older structures with new ones. The type of architecture being used in the new buildings runs from modern to ultramodern.

Industrial Surveys

It is held of utmost importance for trade school directors to be in possession of information concerning the number and kinds of industrial establishments in their communities. This type of information, considered imperative because a primary objective of industrial education is to prepare students for gainful employment in industry, has been gathered through industrial surveys of the various communities served by schools. Through such surveys, a body of information is obtained which will assist the schools to render better service to the community and the Nation.

Advisory Committees

The Organic Law of Industrial Education states that industrial schools must have an organization capable of keeping the schools in permanent contact with the economic activities of the community. The councils, or advisory committees, are made up of persons representing various economic activities of the community. It has now become the practice in most communities to use the Council as a means for pooling ideas for the betterment of industrial instruction.

SENAI Program

The SENAI program (Serviço Nacional de Aprendizagem Industrial), or the National Service of Industrial Apprenticeship) has become a potent factor in the training of Brazilian youth for trades and industry. The program accepts youths between the ages of 14 and 18. For the most part they are already employed in industry. The program is not limited to the younger people, however. Advanced short courses are given for adults. SENAI is not designed to offer courses in elementary education, but rather does cater to those who have completed their fundamental education.

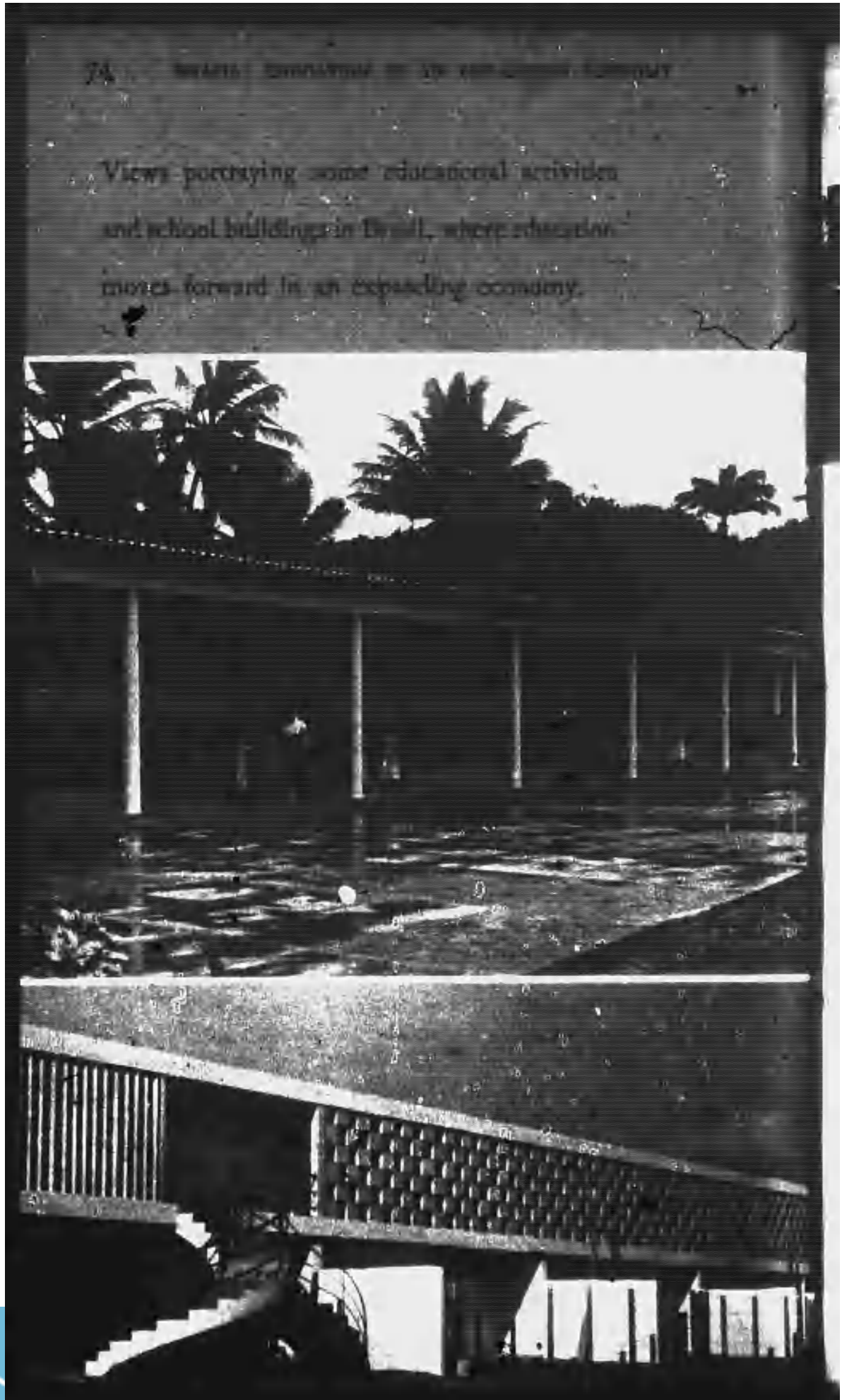
Although the nature of the SENAI program is private, its scope and influence are quite public. It is attempting to fill the gap between the apparently small number of skilled workmen and foremen and the tremendous need for them. Approximately 2,000,000 unskilled workers and 300,000 qualified workers are in the trades.

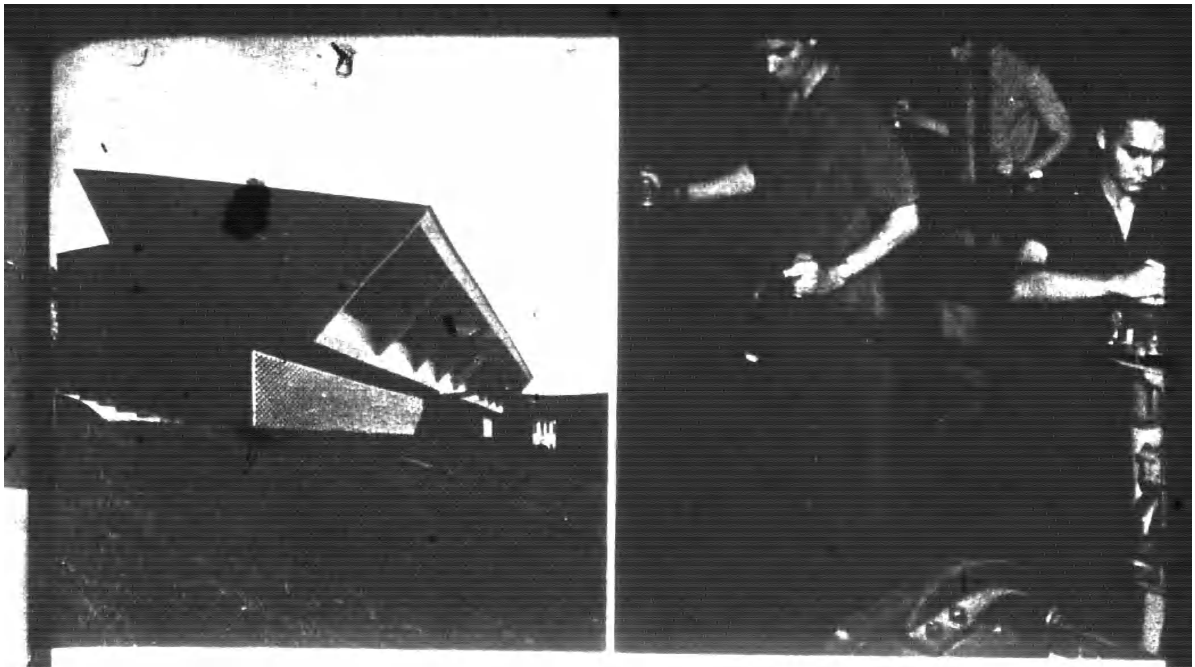
Organization

The National Federation of Industries in Brazil is the organization which sponsors and maintains apprenticeship training. The national president is also the ex-officio president of the National Advisory Council of SENAI. The National Advisory Council serves in an advisory capacity for the National Department, which coordinates the combined activities of SENAI installations throughout Brazil. The country has been divided into eleven regions for administrative purposes. The regional organization maintains a council and a department as does the national organization, and the regional president of the national federation presides over the council.

The plan is supported by a 1-percent tax on the total monthly payrolls of combined Brazilian industries. As the industries expand in size and scope, the amount of money derived from the tax increases and the influence of SENAI is expanded. The evidences of the expenditures are seen in the new and well-equipped buildings, which include the Escola Técnica de Indústria Química e Têxtil in Rio de Janeiro, the Roberto Simonsen school in São Paulo, the SENAI School in Curitiba; and many other schools in other cities.

Views portraying some educational activities and school buildings in Brazil, where education moves forward in an expanding economy.



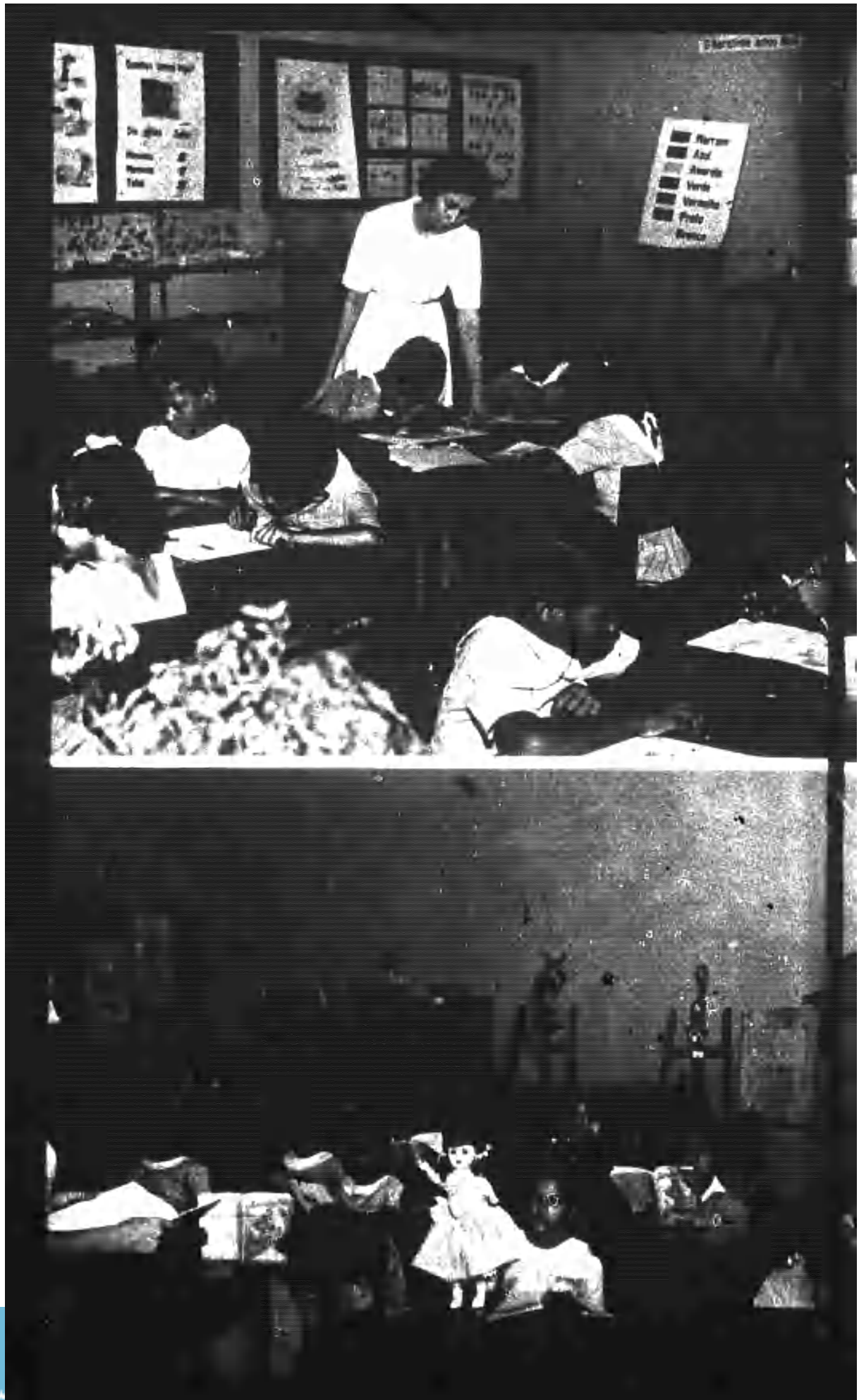


Scope

It is difficult to establish an exact figure for the number of SENAI schools because of the rapid building program. There were 120 schools enrolling 28,937 students in 1955. An additional 650 students from neighboring South American countries were enrolled on scholarships or were taking correspondence courses. At present 82 schools are located in the States of Rio Grande do Sul, Santa Catarina, Parana, São Paulo, Minas Gerais, and Rio de Janeiro, and the Federal District. This fact is significant because these States produce more than 80 percent of the total industrial output of Brazil. The rest of the States have 28 SENAI schools. Table 16 points out the location of SENAI schools and gives their corresponding enrollments. Many States have only a few schools and these have small enrollments. This situation can be expected to change because of increasing interest in the program and its relatively recent initiation.

Action Plan

A work plan for SENAI has been established. A minimum of one school shall be set up in each State. These SENAI schools will be located in the large centers where labor demands are great. Operated by directors, teachers, and technical personnel who have been prepared for their jobs, the schools will be responsible for administering beginning, integrated, and intensified courses, as well as advanced priority courses. The improvement of skills of qualified industrial



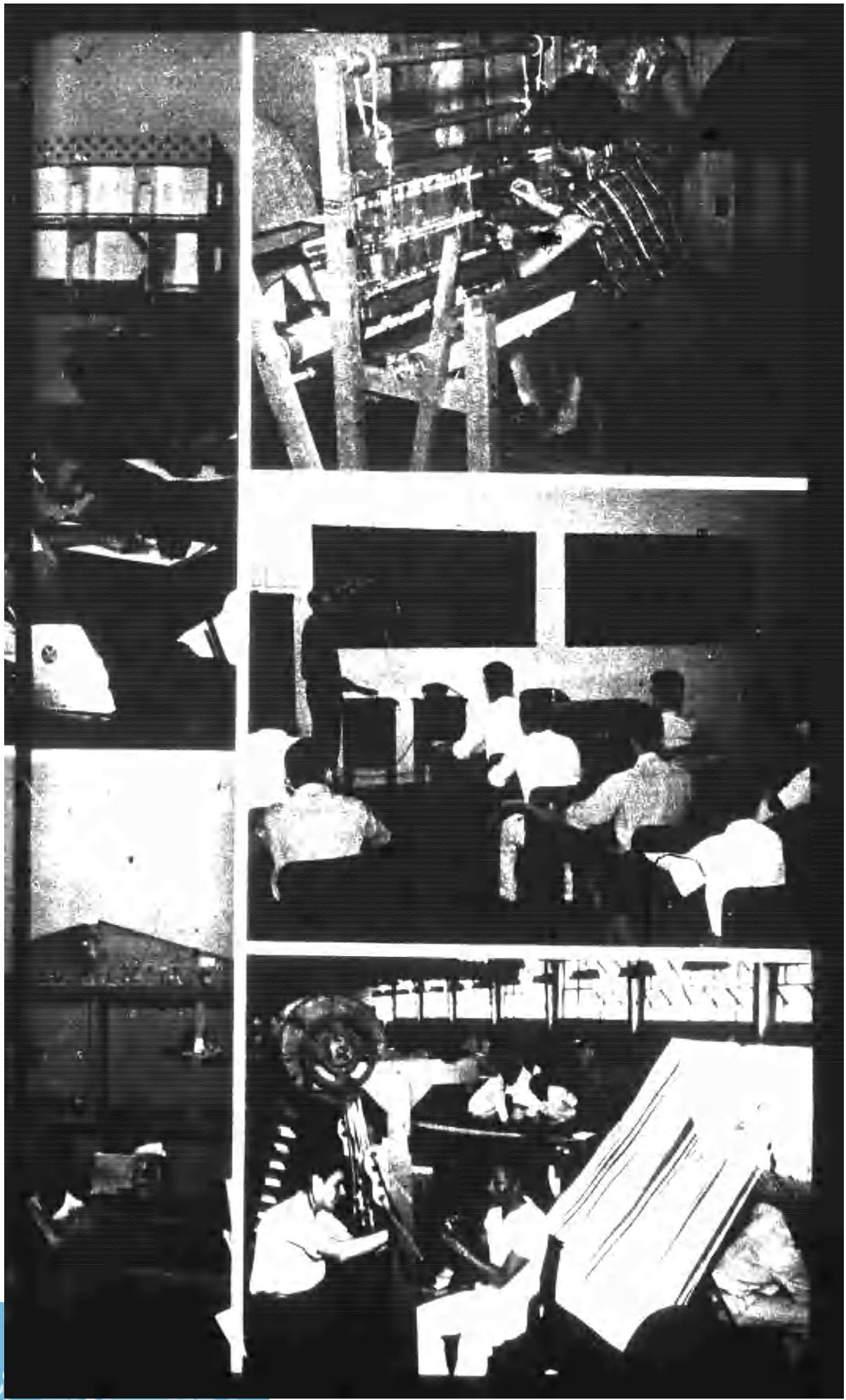


Table 16.—Number of SENAI schools and enrollment, by State and Territory: 1956 [1]

State or territory	Number of schools	Enrollment	State or territory	Number of schools	Enrollment
São Paulo	20	10,921	Paraíba	3	192
Rio Grande do Sul	11	4,392	Goiás	2	163
Distrito Federal	5	2,606	Maranhão	1	145
Rio de Janeiro	11	22,696	Rio Grande do Norte	1	69
Minas Gerais	13	2,264	Piauí	1	17
Paraná	7	1,008	Departamento Nacional	1	237
Bahia	4	980			
Pernambuco	5	772	Total	110	28,937
Sergipe	2	687			
Ceará	3	451			
Santa Catarina	5	606	Foreign students (enrolled and correspondence)		760
Espírito Santo	2	332			
Pará	1	280	Grand total	110	29,697
Alagoas	1	226			
Mato Grosso	2	208			

[1] Figures drawn from: Serviço Nacional de Aprendizagem Industrial. SENAI: Escolas, Cursos, e Matrículas no Ano de 1956. Rio de Janeiro: Departamento Nacional, 1956. p. 34–35. (Mimeo.).

foremen and operators through appropriate SENAI courses, through correspondence courses, or through shop training in factories are responsibilities inherent in this type of instruction. It is within the framework of the work plan that the objectives of SENAI are carried out.

SENAI Pilot Programs

It would be impractical to attempt to describe the many experimental programs now directed by the SENAI organization. One school has been selected, however, in order to give the reader some concept as to the types of experimentation taking place. The Technical School of Industrial Chemistry and Textiles of SENAI (Escola Técnica de Indústria Química e Têxtil de SENAI or ETIQT) serves as a useful example. Located in the Federal District of Rio de Janeiro, this school serves as the country's model textile training program, and has become an important entity because of the industry's rapid growth. The school opened in 1948 and has trained many specialists and technicians for Brazil, as well as 230 students from other Latin American countries.

At present, the institution is administered by a Brazilian and an American from the United States. The former was trained in both Brazil and the United States. The latter is also currently the technical director of the Brazilian textile training program. The school has been developed through the joint efforts of the Institute of Inter-

American Affairs, the National Federation of Industries, and officials in the Ministry of Education and Culture and the Ministry of Labor.

The purpose of ETIQT is to educate young Brazilians for key positions in all phases of the textile industry, to develop their abilities for leadership and for taking part in community affairs, and to cooperate with the Brazilian Textile Industry in gaining, through research, information that will improve the quality and quantity of the finished products, reduce production cost, increase the Brazilian consumption of textiles, and increase the technical knowledge of the entire textile industry.

The complete course covers a period of 3 years. Students who successfully gain admission to the school are given scholarships to cover the costs of their schooling, and an additional monthly stipend of 650 cruzeiros the first year, 750 the second year, and 850 cruzeiros during the final year. They are also provided with dormitory facilities and meals.

Entrance requirements include graduation from a ginásio, a basic commercial or a basic industrial course, a birth certificate, vaccination certificate, military registration, and three photographs. The admission examinations include an aptitude test, written tests in Portuguese, mathematics, physical and natural science, and graphic design.

The course of study is divided into units of instruction. The first unit, covering general education, is taught in each of three years. The courses include English, Portuguese, Portuguese literature, public speaking, mathematics, general chemistry, general physics, principles of economics, geography, history, government, and sociology. Unit two is applied shop; three, introduction to the study of textiles; four, weaving and designing; five, yarn preparation; six, introduction to knitting; seven, textile chemistry; eight, textile management; and nine, practical work in a textile plant. Each of the above units is further broken down into specific related topics. Students are expected to work in a textile factory during their vacation periods.

A minimum of 41 clock hours must be spent each week in classrooms and laboratories. The amount of time is divided equally between formal instruction and theory and shop training. Classroom or laboratory work is given in the morning and practical training in the afternoon.

Much of the instructional material has had to be translated into Portuguese, mainly from English. Each instructor receives a detailed syllabus to guide the teaching-learning process in class. Some of the instructors, having studied in the United States, are able to prepare their own materials from first hand knowledge.

Successful candidates are given a diploma entitled *Diploma de Técnico Têxtil* upon completion of the course. The diploma is registered in the Ministry of Education and Culture, and entitles the bearer to admission to an institution of higher learning.

The results of this and other similar schools have evidently gained the respect of employers in business and industry to the extent that increasing support for such schools has been forthcoming. Many of the graduates of SENAI are able to obtain good jobs because of their technical knowledge and skills.

SENAC Program

The National Service of Commercial Apprenticeship (SENAC) and SENAI have paralleled each other in creation, orientation, and objectives. SENAC serves commercial education much as SENAI serves industrial education. The methods of financial support and operation are also similar. Their strength is derived in large measure from the fact that business and industry cooperate with Government in educational development. SENAC has established a number of schools to provide for the technical education of students choosing to follow commercial careers and this type of education is extended also to persons employed in business who desire greater competencies and a chance to advance in their work. Commercial apprenticeship schools, it is claimed, do not conflict with the operations of Government commercial schools. The two programs are intended to complement the work of each other.

Commercial Education

The Organic Law of Commercial Education reads in the same manner as does that of industrial education, and the two laws describe their purposes similarly. The two types of commercial schools are commercial (escolas comerciais) and technical commercial (técnicas de comercio). The commercial schools serve primarily students in the basic 4-year cycle, and the technical schools offer the 3-year advanced program. Either type of school may also offer continuation courses. This means that a person although not working for a diploma may enroll in order to improve his skills. The second or advanced cycle offers five courses leading to a diploma: business and advertising, administration, accounting, statistics, and secretarial. Graduates of

these schools have the same opportunities for advanced studies as those of the industrial and other types of secondary schools.

The diploma awarded after completion of the basic cycle is that of office assistant (auxiliar de escritório). Diplomas are awarded at the end of the second cycle in each of the major areas of study, depending on the student's area of specialization.

Such matters as entrance and final examinations, grading practices, length of school day and year, entrance and scholastic requirements, and related items are closely allied to those of other secondary schools.

Commercial School Data

The increasing number of teachers and students in commercial education from 1933 to 1954 is shown in tables 17 and 18, the former covering the basic cycle, the latter, the technical cycle. The figures reveal a steady increase in each category, thus following the same growth pattern as in other Brazilian schools. Table 19 shows the 1956 distribution of schools, students, and teachers by State and Territory. The pattern is much the same as for other secondary schools because of the disparity among the various States. The demand for instruction is heavy in the southern part of the country, where the population is more dense and activities are numerous. There are more schools and teachers in the technical cycle than in the basic, but enrollments are greater in the basic. The loss of students from the basic to the advanced courses in commercial schools is not so great as in other types of secondary schools.

Table 17.—Number of commercial schools (basic), number of teachers, and number of students registered, enrolled, attending, promoted, and graduated: 1933, 1938, 1943, 1948, 1953, and 1954 [1]

Year	Schools	Teachers	Students				
			Registered	Enrolled	Attending	Promoted	Graduated
1	2	3	4	5	6	7	8
1933	201	1,611	12,136	.....	10,457	.....	1,291
1938	261	2,134	25,712	22,666	20,912	19,509	4,673
1943	366	3,024	43,869	37,594	35,610	32,086	8,022
1948	366	3,825	51,045	43,902	41,539	37,610	7,843
1953	308	3,456	48,187	41,030	38,627	32,536	5,516
1954	346	3,884	53,755	45,771	43,503	36,630	6,232

[1] Figures drawn from: Ministério da Educação e Cultura. Sinopse Retrospectiva do Ensino no Brasil—1871-1954. Rio de Janeiro: Serviço de Estatística da Educação e Cultura, I.B.G.E., 1956. p. 19.

Table 18.—Number of commercial schools (technical), number of teachers, and number of students registered, enrolled, attending, promoted, and graduated: 1933, 1938, 1943, 1948, 1953, and 1954 [1]

Year	Schools	Teachers	Students				
			Registered	Enrolled	Attending	Promoted	Graduated
1	2	3	4	5	6	7	8
1933	187	1,505	7,357	.....	6,502	.....	2,370
1938	235	1,697	11,713	10,925	10,202	10,088	2,8388
1943	340	2,515	20,076	25,846	24,156	22,903	6,498
1948	408	3,907	33,027	29,534	26,862	27,072	7,474
1953	502	5,070	47,279	41,883	38,597	38,606	11,152
1954	537	5,423	49,964	44,252	40,780	40,790	11,476

[1] Figures drawn from: Ministério da Educação e Cultura. Sinopse Retrospectiva do Ensino no Brasil—1871-1954. Rio de Janeiro: Serviço de Estatística da Educação e Cultura, I.B.G.E., 1956. p. 19.

Table 19.—Number of commercial schools, students, and teachers, by State and Territory: 1956 [1]

State and territory	Basic cycle			Technical cycle		
	Schools	Students	Teachers	Schools	Students	Teachers
1	2	3	4	5	6	7
State:						
Alagoas	3	380	20	7	687	61
Amazonas	4	768	37	6	414	50
Bahia	16	1,417	145	17	1,973	207
Ceará	6	837	64	10	1,088	107
Distrito Federal	33	6,327	448	42	5,841	497
Espírito Santo	6	1,556	80	11	1,164	114
Goiás	3	706	45	11	1,005	99
Maranhão	2	959	52	3	548	49
Mato Grosso	2	125	15	5	524	58
Minas Gerais	75	11,183	808	114	8,080	1,073
Pará	9	2,253	136	10	1,155	116
Paraíba	11	1,759	145	8	726	75
Paraná	5	370	42	26	3,242	292
Pernambuco	8	1,026	98	18	2,285	227
Piauí	1	37	6	8	783	78
Rio Grande do Norte	13	1,138	119	9	644	88
Rio Grande do Sul	17	2,008	163	65	5,256	653
Rio de Janeiro	21	2,468	256	50	3,790	460
Rondônia	.....	.....	.....	.....	.....	.....
Santa Catarina	4	557	30	15	1,426	135
São Paulo	141	2,828	1,605	167	17,121	1,643
Sergipe	2	496	37	5	467	58
Territory:						
Acre	.....	.....	.....	.....	.....	.....
Amapá	1	69	11	1	88	13
Guaporé	.....	.....	.....	1	48	12
Rio Branco	.....	.....	.....	1	18	9
Total	383	65,264	4,373	610	88,271	6,183

[1] Figures drawn from: Ministério da Educação e Cultura, Sinopse Estatística do Ensino Médio—1956. Rio de Janeiro: [no date]. p. 13-15.

Chapter VII

Higher Education in the Twentieth Century

THE UNIVERSITY SYSTEM in Brazil is less than 30 years old, having been established by the Statute of Brazilian Universities (Estatuto das Universidades Brasileiras) by Decree No. 19,851, April 11, 1931. The first university was organized September 7, 1920 as the University of Rio de Janeiro. The statute did not alter the traditional pattern of higher education, but did symbolize the beginning of the university as such because it represented a merging of the Law School, the Medical School, and the Polytechnic School of Rio de Janeiro. A second institution, the University of Minas Gerais in Belo Horizonte, followed the example of Rio de Janeiro to combine existing faculties of law, medicine, and engineering into a single administrative agency. Its charter, specified academic and administrative autonomy. The Brazilian higher education system is a Twentieth Century development, with a doubling of effort in the last quarter-century.

Brazil had not been without higher education during the colonial, imperial, and early republic periods, but most of the schools were professional academic faculties of law and medicine. In many cases, these faculties were privately owned and controlled, and catered to a restricted student body of men. Most of the support came from fees and subscriptions, thus limiting enrollment to those who could pay. The curriculum emphasized intellectual training because the vocational nature of the course was less important to the students. Many graduates used their diplomas to gain social acceptance and recognition rather than to prepare themselves for a career. It was not until the industrial and economic demands of the 20th century created new needs that Brazil began to organize and coordinate higher education.

Decree No. 19,851 became the organic law for higher education because it established a pattern for organization, administration, and creation of universities. The University of São Paulo, established January 25, 1934, was the first under the new law. One year later, under the leadership of Dr. Anísio Teixeira, came the University of the Federal District, and on July 5, 1937, the University of Brazil, which incorporated the faculties of the University of Rio de Janeiro in its organization. The University of Brazil became the parent (padrão) establishment, or the model for other institutions. This role was relinquished in 1955, when the University of Brazil was given full autonomy.

Brazilian university enrollments are increasing rapidly. New courses are being offered to meet the wider needs of larger student bodies. A student may choose a course in any one of the following fields: law, medicine, agriculture, liberal arts, education, pharmacy, dentistry, veterinary medicine, hygiene and public health, economics, architecture, or business administration. The faculties are complemented by laboratories and/or institutes offering work in such studies as forestry, radio, herpetology, and police training. The University of Brazil offers many of the same type of courses as the University of São Paulo, but in addition gives training in mines and metallurgy, criminology, psychiatry, industrial mechanics, and many others. Not all the universities can offer the wide range of courses available at the large institutions; however, every university is required by law to have a faculty of philosophy and letters where secondary teachers may be trained.

In 1954, Brazil had 17 universities and today it has 21. The 21 are the following:

University of Bahia
University of Brazil
University of Campinas
University of Ceará
University of the Federal District
University of Minas Gerais
University of Pará
University of Paraíba
University of Paraná
University of Recife
University of Rio Grand do Sul
University of São Paulo
Catholic University of Minas Gerais
Catholic University of Pernambuco
Catholic University of Rio de Janeiro
Catholic University of Rio Grande do Sul
Catholic University of São Paulo
Mackenzie University
Rural University of Minas Gerais
Rural University of Rio de Janeiro
Rural University of Pernambuco

Although many of the universities are of private origin, all are regulated in accordance with the act of 1931. A Government inspec-

tor is assigned to each institution to see that Government expectations are met. If an institution is not accredited, its diplomas are not recognized by the Ministry of Education and Culture and it faces the danger of being closed. Private institutions can and do receive financial assistance from the Federal Government because they are Government controlled, assume a public function, and are considered a part of the school system.

University Organization

Brazilian universities are given the charge to elevate the general culture, to foster research in all fields of human knowledge, to encourage scientific and technical advancement, and to develop cooperation between students and faculty in order to promote improvement of the Nation and of humanity in general. The universities are also to make beneficial suggestions concerning the Nation's needs: psychological, social, and economic. They are to assume leadership in the development of national culture and are to utilize every opportunity to make cultural exchanges with foreign countries and their universities.

Any institution desiring university status is required to establish at least three institutes or faculties of higher education including a Faculty of Philosophy, Sciences, or Letters; and any two of Medicine, Law, or Engineering. The school must provide adequate teachers, laboratories, and conditions which provide for efficient instruction. Guaranteed finances from public and/or private sources must be in evidence, as well as proof that the objectives of the establishment are in accordance with the best interests of good instruction as judged by the National Council of Education. The law provides that universities may be created and maintained by the Federal Government, the States, or private foundations or associations. State governments may endow their own universities from State funds, but must also assure continuing support for regular operation. The administrative and instructional organization of any university must be instituted by statutes approved by the Ministry of Education and Culture, and can be modified only by proposal of the University council (conselho universitario) of the university concerned to the National Ministry, where it is heard by the National Council of Education.

Universities have administrative, instructional, and disciplinary autonomy within the limits of the law. Any changes or additions in course offerings may be approved by the university council, although

basic curriculums for the various faculties are centrally defined. The changes must be recognized by Federal Decree in order to be effective. Accreditation of State and independent institutions is accomplished by inspection of a representative from the National Department of Education. Each institution is subject to the fiscal control of the Federal Government and is expected to observe faithfully all legal precepts and statutes which govern the functions of higher institutions. The Federal Government reserves the right to suspend accreditation when an institution fails to meet established standards.

Each university is administered by a rector and a university council. The rector must be Brazilian born and hold the highest academic rank. Each institution maintains a rectorate, a general secretary, an accounting section, and any other services deemed necessary for effective administration. The rector is selected by vote of the university council from a list of names nominated by the various faculty governments. The Ministry of Education and Culture holds veto power in case the nomination does not appear to be satisfactory. The term of office is limited to 3 years, at which time the same appointment procedure is repeated. A rector may be reelected and reappointed for as many terms as his faculty supports him.

The general duties of the rector, in connection with administration of the university, include watching over the observance of the statutes, presiding over the university assembly (assambléia universitária) and the university council, signing diplomas, administering finances, licensing, hiring, or dismissing professors, superintending annexed services, exercising disciplinary powers, and preparing the budget.

Brazilian universities are divided into faculties and institutes for administrative purposes. This organization corresponds to faculties or schools and departments in American universities. Each unit of faculty and institute size is administered by a director, technical-administrative council (conselho técnico-administrativo), and an assembly of faculty members holding the academic rank of full professor and known as a congregation (congregação). The director of an institute is chosen in a manner similar to that of choosing the rector of the university and also serves for 3 years. He is the administrator of the institute and is responsible to the rector.

University Council

The university council is the consulting organ of the university under the rector's direction. It is composed of the institute directors,

an elected representative from each faculty, a representative from the alumni association, and the president of the central directory of students (directório central dos estudantes). The council assembles every 3 months at the call of the rector. A vice president, chosen by the council, acts for the rector in cases of hardship or absence and during the period awaiting nomination of a new rector.

A majority of the members of the council may act on such problems as exercising deliberative jurisdiction of the university, organizing the list of names for selection of the rector, electing its own vice president, approving internal regimentation of the institutes, discussing and presenting any changes in university statutes, approving and modifying regulations, approving or organizing budgets, passing on special expenditures, accepting grants and emoluments, authorizing research projects, selecting people to receive the title of *honoris causa*, and deciding questions not covered by law. This is an important body in university administration.

The general university assembly is an organization of professors within a university representing its various institutes. It meets once a year to hear the report of progress by the rector, assists in awarding doctorates and honorary titles, and hears papers of general interest and importance to education. Special sessions may be called by the rector to discuss problems relative to the functions of institutes.

Still another council operates at institute level to assist the director. This is the technical administrative council. Meetings are held at least once a month and may be called at the pleasure of the director. Primary duties are the following: To discuss academic problems submitted by the faculty, review curricular offerings, prepare course schedules determine enrollment ceilings, establish criteria for teaching loads, organize examining boards for student evaluation, adjudicate pay schedules, assist in preparation of the annual budget, and other similar functions. The senior member of the council in point of service assumes leadership in the absence of the director.

Curricular Organization

University courses are organized in six categories—basic, advanced, specialized, extension, postgraduate, and doctorate. Smaller institutions may not be able to justify multiple offerings. Accredited and advanced courses are taught by full professors assisted by auxiliary teachers. Other courses may be taught by associate professors in the regular curriculum. Free courses (cursos livres), offered for

general cultural advancement, are taught by selected personnel from a local staff, another Brazilian university, a foreign country, or a renowned person not affiliated with a university.

University charters read much the same since the pattern was provided in the basic law. Some charters include programs of study for the various faculties; however this is not the rule. Programs of study are established at the National level for faculties of law, medicine, engineering, philosophy, dentistry, and other disciplines. Considerations may be given to local needs and demands in curricular offerings, and these considerations influence what faculties are maintained beyond those indicated by law.

The law course at the University of São Paulo is typical of law courses at all Brazilian universities:

First year: Introduction to the Science of Law, Political Economy, Roman Law, Civil Law, General Theory of the State.

Second year: Civil Law, Penal Law, Constitutional Law, Commercial Law, Financial Science.

Third year: Civil Law, Penal Law, Commercial Law, Judicial Civil Law, Social Legislation.

Fourth year: Civil Law, Penal Law, Commercial Law, Judicial Civil Law, International Law, Legal Medicine.

Fifth year: Judicial Civil Law, Judicial Penal Law, International Private Law, Administrative Law, Philosophy of Law.

The course leading to the doctorate in law requires two additional years as listed plus presentation and defense of a thesis as required in all faculties:

First year: Public Law, History of National Law, Criminology, Comparative Civil Law.

Second year: Economic and Social Legislation, International Public Law, Philosophy of law.[1]

In faculties of philosophy, separate courses are offered for mathematics, physics, chemistry, natural history, history and geography, social science, classical languages, neo-latin languages, anglo-germanic languages, education, and didactics. The 3-year course in history and geography is as follows:

First year: Physical Geography, Human Geography, Anthropology, Ancient History, the Middle Ages.

Second year: Physical Geography, Human Geography, Modern History, Brazilian History, Ethnography.

[1] Universidade de São Paulo. Guia da Universidade de São Paulo—1953–1954 (No. 3). São Paulo: Tipografia Edanee S.A., 1954. p. 87–88.

Third year: Brazilian Geography, Contemporary History, Brazilian History, American History, Ethnography of Brazil.

If the candidate chooses to qualify for a teaching diploma, he takes the following subjects in the fourth year:

Fourth year: General Didactics, Special Didactics, Educational Psychology, School Administration, Biological Foundations of Education, Sociological Foundations of Education.[1]

In addition to the subjects listed above, the student is expected to study Portuguese, and French or English.

The length of each course in years depends upon the choice of subject-matter. Medicine requires 6 years to complete; law, 5; agronomy, 4; education, 4; economics, 4; architecture, 5; engineering, 5; diplomacy, 3; dentistry, 3; music, 2; and so forth.

The curriculums in the faculties of Brazilian universities follow the general pattern of those listed.

Extension and Evening Residence

Night classes and extension work are increasingly popular. The University of São Paulo has greatly expanded this type of program in recent years. Other universities have also initiated courses which cater to persons who want to get additional schooling. In 1956, the University of São Paulo enrolled 5,793 students in 193 classes. The courses enjoying the largest enrollments were Brazilian Authors and Literature, Effects of Biological Radiation, Theory and Practice of the Theater, Criminal Psychopathology, Development of Contemporary Brazil, Social Medicine, New Developments in Police Protection, and Fundamental Brazilian Problems. Nearly half of those enrolled chose to study Brazilian Literature.

The extension work program established at the University of São Paulo is held to be one of the most complete in Brazil. Residents of other large population centers are turning to their universities for similar learning experiences. Extension work promises to be one of the interesting developments in Brazilian higher education.

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[1] Vandick Londres da Nóbrega. Enciclopedia da Legislação do Ensino. São Paulo: Empresa Gráfica da Revista dos Tribunais, LTDA. p. 564–565.

Enrollments

A steady increase is reported in most phases of Brazilian higher education activities. Enrollments have multiplied in most faculties with the greatest increases in the faculties of philosophy and letters. Table 20 shows enrollments for six selected years between 1933 and 1954. The Faculty of Philosophy, Science, and Letters had 302 students in 1933 and 10,563 in 1954. Medicine and law faculties have been in existence much longer and have also enjoyed prestige and adequate attendance. Enrollees of the faculties of philosophy and letters are two-thirds women, while in the other professional colleges they are predominantly men. Reasons often given as to why women predominate in the philosophy faculties are that general offerings are more appealing and that teaching is becoming increasingly attractive and widely accepted as suitable employment for women.

Table 20.—Number of university students, by faculty: 1933, 1938, 1943, 1948, 1953, and 1954 [1]

Year	Faculty					
	Philosophy, science and letters	Law	Economic science	Medicine, dentistry and pharmacy	Engineering	Agronomy and veterinary science
1	2	3	4	5	6	7
1933	302	7,818	282	10,988	2,055	1,305
1938	1,377	7,661	483	9,105	2,007	1,526
1943	3,675	5,839	2,436	7,937	3,074	1,209
1948	4,801	8,722	2,114	11,943	5,808	1,380
1953	9,548	16,977	3,901	15,985	7,089	1,760
1954	10,563	17,539	4,416	16,984	7,838	1,899

[1] Figures drawn from: Ministério da Educação e Cultura. Sinopse Retrospectiva do Ensino no Brasil—1871-1964. Rio de Janeiro; Serviço de Estatística da Educação e Cultura, I.B.G.E., 1966. p. 20.

Table 21 shows the 1956 figures for courses, professors, enrollments, and graduates in universities and isolated faculties. (Many of the isolated faculties are schools of philosophy and letters.) This table reveals that the Universities of Brazil and São Paulo are the largest institutions of higher education in Brazil and from it may be derived the fact that approximately 22 percent of the university enrollment and 15 percent of the isolated faculties enrollment graduated in 1956. These percentages indicate that the holding power of these institutions is high.

Table 31.—Number of courses and professors, and number of students enrolled and graduated, in universities and isolated faculties: 1956 [1]

University	Courses	Professors	Students	
			Enrolled	Graduated
1	2	3	4	5
University of Ceará	21	231	1,016	225
University of Paraíba	9	128	411	63
University of Recife	26	582	3,118	647
Rural University of Pernambuco	2	70	229	37
Catholic University of Pernambuco	12	170	857	115
University of Bahia	29	426	2,161	486
University of Minas Gerais	26	655	3,118	464
Rural University of Minas Gerais	3	78	196	49
Rural University of Rio de Janeiro	2	86	314	70
University of Brazil	60	1,773	8,218	2,819
University of the Federal District	25	418	3,967	808
Catholic University of Rio de Janeiro	28	672	1,604	337
University of São Paulo	33	623	7,486	1,01
Catholic University of São Paulo	29	644	2,712	505
University "Mackenzie"	10	187	2,061	247
University of Campinas	19	209	1,664	380
University of Paraná	29	375	3,000	742
University of Rio Grande do Sul	41	983	3,328	620
Catholic University of Rio Grande do Sul	26	340	1,783	421
Total	454	8,569	47,257	10,040
Isolated faculties	380	5,019	28,187	4,276

[1] Figures drawn from Conselho Nacional de Estatística. Anuário Estatístico do Brasil—1956 (Ano XVII). Rio de Janeiro, 1956. p. 368–369.

Students

Students are bound by certain regulations established by law. Decree No. 19,851 states that students shall apply maximum diligence to their studies, adhere to the institutes' regulations, especially those pertaining to attendance and laboratory work, follow disciplinary regulations, abstain from creating disorders, refrain from showing disrespect to professors and authorities and from violating good customs, contribute to the prestige of the university, and follow the line of command in administration of matters involving important decisions.

Students are admitted to higher institutions upon completion of the colégio or of an equivalent achievement in advanced secondary schools in specialized areas. This means a minimum of 7 years of secondary school instruction, properly documented, and graduation. A candidate must have reached the age of 17, and males must present a military discharge or exemption. Each person must prove identification, sanity, and morality, and pay the necessary fees. Most schools require the student to pass a qualification test (habilitação or exame vestibular) before acceptance.

Promotion from one grade to another is dependent upon successful passing of partial and final examinations and upon attendance. Special boards for the purpose administer oral and written examinations and, when possible, practical exercises. Established fees are charged.

Social Life

Each institution of higher education is encouraged by law to establish suitable social life for faculty and students. Article 100 of the Statute of Brazilian Universities provides for an association called the Society of University Professors (Sociedade dos Professôres Universitários) and Decree-Law No. 4,105 recognized the National Union of Students on February 11, 1942, as the representative and coordinating entity of student bodies in higher education. National central organizations, known as the National Directory of Professors (Diretório Nacional de Professôres) and the Central Directory of Students (Diretório Central dos Estudantes), have been provided by law to strengthen and coordinate activities of the local chapters.

The organizations for professors have three primary functions—welfare, social, and academic. Welfare services look after temporal affairs of members, while the academic section is concerned with intellectual stimulation. The social section promotes fraternity among the staff. The central organization helps coordinate activities, calls a central meeting of delegates of the chapters each 2 years, and works for the general improvement of the Society.

The student association has objectives similar to those of the professors' association and has the same sections for welfare, social, and academic activities. The purpose of student associations is to unite student forces to stimulate school spirit, make beneficial reforms, and set up activities for learning and welfare. The student organization defends the rights of students, establishes academic and social meetings, promotes sports and physical education activities, and sends a representative (the president) to participate in the meetings of the university council. Brazilian students have organized a cooperative, which provides food services at reduced prices. Students who cannot afford to pay the costs of their schooling may be considered for a waiver of fees; however, not more than 10 percent of the students may participate. A student accepting such assistance does so with the understanding that he will reimburse the institution at a later date. Through the Society of University Professors, another service is provided in the form of medical, dental and hospital benefits.

The student organization has achieved considerable power in university affairs. At times it has advocated dismissal of professors, resorted to student strikes, made public demonstrations, and demanded changes within a university. Influences of the student groups are said to vary greatly among the different colleges. Some of their activities include publishing periodicals, providing entertainment and cultural activities, campaigning for funds for community and student projects, and representing student interests with faculty and government.

University Cities

University Island in Guanabara Bay in Rio de Janeiro is the site of the new campus of the University of Brazil. The island is also the site of the new International Airport of Rio de Janeiro. Traditionally, Brazilian faculties have been distributed throughout the cities, but the trend now is to assemble all university functions on one campus. University City of the University of Brazil was under construction in 1958. The plans call for buildings to house 15,000 students immediately, and eventually 30,000.

This trend towards expansion is evident in most cities having a university. The University of São Paulo has started a new campus. Catholic University of Rio de Janeiro is occupying the first buildings on a new campus. Plans have been printed for a new university in Florianopolis, Santa Catarina, to be known as the University of Santa Catarina. The University of Minas Gerais has purchased a site for a similar expansion program. The buildings under construction represent the latest in modern-type architecture.

Mackenzie University

Mackenzie University at São Paulo was founded and has been administered and considerably influenced by United States personnel. During its formative years, this institution was entirely supported by North Americans, but Brazilians increasingly are becoming primary contributors. It has an active alumni association which provides for scholarships, awards, and placement of graduates. Students have been able to transfer to United States schools without difficulty.

It seems that Mackenzie University had an interesting beginning: Mary Annesley Chamberlain, wife of a Presbyterian missionary. George Chamberlain, befriended some Brazilian children, who later brought other children to hear more of her stories. This informal group or school became so popular that additional space was acquired for the "American School" (Escola Americana), which was founded in 1871. Grades were added and accordingly expenses mounted each succeeding year until a full-fledged school was in operation. Emperor Dom Pedro II was one of the first donors to rally to the support of the school when in 1878 he paid an unannounced visit. John T. Mackenzie, a wealthy New York lawyer, had planned in his youth to become a missionary and visit Brazil. His plans were diverted, but he never lost interest in Brazil. He died before he saw Brazil, but he provided enough money in his will for the American School to erect its first college building. The students called the structure "The Mackenzie" and the institution has since assumed his name. Colégio Mackenzie was officially established in 1886. Today the campus has buildings estimated to be worth more than $12,000,000 and the University owns 175 acres in Campo Cabuçú with housing and laboratories for engineering field work.

Mackenzie University is recognized as one of the leading schools of Brazil. It maintains a complete educational program from elementary school through the university. Its offerings are broad enough to include teacher training, technical, commercial, and liberal arts programs. Its reputation is such that approximately 1,500 students have to be denied admission each year for lack of facilities.

The contributions of Mackenzie University to Brazilian life and education are many. In earlier years, Miss Marcia P. Brown was hired to introduce North American methods in the school. Later the city of São Paulo founded a public school system after her pattern at the American School. Engineering graduates have pioneered industrial expansion in São Paulo and elsewhere in Brazil. Mackenzie was one of the country's first institutions to teach commercial subjects and its graduates fill important positions in business.

Mackenzie has always welcomed students from all nationalities and creeds. Its enrollment of approximately 5,000 makes it one of the largest privately supported schools in South America. It has an alumni of 35,000, many of whom are distinguished Brazilians. Its faculty includes teachers and professors from many different nationalities, and the school is known for its stability in faculty and administration.[3]

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[3] Michael Scully. São Paulo's Mackenzie U. *Américas* 7:2:18–22, February 1955.

Research

One of the avowed functions of Brazilian universities is that of conducting research. Experimentation is going on in all faculties. Recent projects include atomic energy research, medicines for tropical diseases, biological studies, agricultural experimentation, sociological and anthropological queries. The number of different types of research now being accomplished in Brazil is noteworthy. Botany is an especially fertile area for study because of the wide variety of plants in the country. Many studies, related to the life and the area in general, are under way in the Amazon region. The research role of the universities is increasing in importance and stature. Facilities for research activities are being provided in the new buildings, and the trend seems to be for more and better experimentation.

Chapter VIII

Specialized Schools

SPECIALIZED SCHOOLS are for the most part administered by agencies other than those previously described in this bulletin. Military, aeronautical, naval, agricultural, business, and public administration establishments[1] each respond to separate administrative units. Adult education might well be discussed with elementary, secondary, or higher education because a form of adult education exists at all three levels. However, none of the other adult education programs approach in scope and magnitude the Adult Education Campaign (Campanha de Educação de Adultos), which thus needs a separate explanation. Each type of institution mentioned in this chapter has a uniqueness because of its purpose.

Adult Education

The Adult Education Campaign was organized in 1947 in response to findings of the 1940 Census, which revealed that 55 percent of the population of Brazil over 15 years of age could not read and write. Some of the reasons for this high percentage of illiterates have been the slow development of an elementary school system, irregular school attendance, and insufficient schooling available for children. The first remedial action came in the form of the National Fund for Elementary Education, which distributed funds to local and regional governments for school improvement and provided 4,000 new small

[1] Specialized schools in business administration and public administration are described in chapter X.

rural schools; 25 percent of the revenue was earmarked for an adult education program. Professor Clemente Mariani, Minister of Education, appointed Dr. M. B. Lourenço Filho, as Director of the National Department of Education to direct the campaign. Dr. Lourenço had already given leadership to establishing the elementary education fund.

According to Director Lourenço, the campaign was based on two principles: "maximum centralization of planning and technical policy-making in matters fundamental to the movement's basic objects and procedures, and maximum executive decentralization, with complete flexibility as regards regional needs and peculiarities".[1] The plan called for a joint effort among Federal, State, Territorial and private agencies, with the Federal Government providing the funds and leadership. The Government agreed to furnish all publications, directions, regulations for teaching staffs, and teaching materials, while the regional authorities would provide classrooms, other facilities, and supervision. The first aims were to make a start and then to refine procedures as experience pointed the way. It was anticipated that instruction would improve as experience and in-service training began to operate.

Interest was created in localities by a dramatic appeal through individuals, churches, associations, and commercial, industrial, and agricultural concerns. Initial activities were followed by using such media as the press, radio, theater, cultural missions, cinema, traveling libraries, and community centers. Some 10,000 evening schools were started, a number which has increased to over 17,200.

One of the most difficult problems was that of preparing, publishing, and distributing new materials in millions of copies. This was a campaign not only for teaching people to read and write, but also for raising the cultural, intellectual, and living standard of a significant portion of Brazil's population. New readers had to be written for adults. Care had to be exercised to avoid similarity with children's primers, which might result in psychological complexes in adults. It was found that reading materials needed to be well illustrated and simple in order adequately to appeal to adults, and at the same time a methodical organization was necessary to help instructors and volunteer workers keep a sequence. Experience has shown that the normal Portuguese adolescent or adult can learn to read his language syllabically in 6 weeks, and in 3 more months can read almost any text. This is possible because of the syllabic character of the Portuguese language and the phonetic orthography in use.

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[1] M. B. Lourenço Filho. The Adult Education Campaign in Brazil. *Fundamental Education*, 2 : 2 : 3–9, April 1950.

Three little books called "reading guides" were used to initiate the reading process. The first one dealt with reading, the second with knowledge, and the third with living. This series gave rise to one of the slogans "Read, in order to know and live better." The first book emphasized basic keys and fundamentals in reading, while the second presented connected stories with characters drawn from everyday lives facing problems of a spiritual, work, civic, health, or economic nature. The third guide emphasized problems of citizenship. Each book was graduated according to difficulty in terms of vocabulary, syntax, and intellectual content. Other publications were prepared dealing with food and health education, and posters were designed illustrating health education and rural hygiene.

During 1949, a program of audio visual instruction was started, and 1,500 slide projectors and 12,000 filmstrips were distributed. Rural areas lacking electricity received kerosene-operated projectors. Another feature of the program was the publishing of a bimonthly paper entitled *Everybody's Newspaper*. In addition, true success stories were printed and distributed along with pamphlets on rural home industries and technical training on soil protection and conservation.[8]

Most results of the campaign have been considered rewarding. It seems significant that between 1947 and 1952, 6,000,000 readers were distributed without charge. The program has had a stimulating effect on day-school attendance because of the enhanced attitude toward schooling. Parents have encouraged their children to a greater degree, and in some remote areas education authorities have used the improvised premises for adult schools for regular daytime classes. Authorities have taken increased interest in the elementary school, as have also participating businesses, industrial establishments, and other institutions. The uniting of private bodies with governmental agencies in a common constructive project has produced gratifying results of initiative and success. Brazilians are proud of the program and its results.

Other types of adult education programs already discussed consist of university extension classes, courses in industrial and commercial fields sponsored by SENAC, SENAI, and private programs. All these opportunities have greatly enhanced the learning potential of the population. This is noticeable in the improved interest and capabilities of those who have profited by basic and advanced adult education.

[8] Ibid., p. 7.

Agricultural Education

Agricultural education in Brazil is a vital function because of the many persons engaged in agricultural pursuits, the importance of agriculture to the national economy, and the need to produce more food for internal consumption. Evidently this type of education has not received adequate support in the past, but there is a growing realization among Brazilian leaders that basic improvements for the country's large rural population and agricultural economy are in large measure dependent upon agricultural education and science. It is also recognized that trained technicians are needed for modern agriculture and are needed in abundance.

Recruiting individuals to pursue careers in agriculture and veterinary science has been difficult mainly because of a somewhat general low esteem for farm workers. The help on large farms has been unskilled and unschooled people, and the owners have been absentee landlords. It is estimated that two-thirds of Brazil's inhabitants today are rural and a large percentage of these subsistence farmers or migrants. Many of the small farms produce little and the workers have little. Most of the work is done by hand and by primitive methods. The children are taught to be fruitful workers using unfruitful productive methods. In rural areas the science of farming has not been practiced, and in the cities people are concerned with other pursuits. Large farms (*fasendas*) enjoy the advantages of modern equipment and plenty of workers to produce more with greater efficiency.

But the traditional course has been recognized as inadequate in this huge, progressive, country of Brazil today. Less than 2 percent of the total land area is devoted to agriculture, and this has not produced enough foodstuffs to feed the country. New experimentation is taking place in planting, soil enrichment, diseases of animals, improved stock breeding, soil conservation, crop rotation, and use of insecticides. The introduction of farm machinery and of modern farm techniques has proved the necessity for better education. A great need for extension services for farmers has been felt, and some colleges are organizing teams to assist in farming practices. A closer relationship between schools and communities is constantly being sought, thus modifying its curriculum to include a greater amount of practical application of theory.

The proportion of students enrolled in agriculture and veterinary science is small when compared with the proportion enrolled in other secondary and higher education programs. This situation may be

owing partly to lack of interest in agriculture and partly to little demand for improved agricultural conditions. Another problem arises too from the fact that few of the current agricultural science students have had practical experiences on a farm.

Organization

The agency most responsible for agricultural education in Brazil is the Superintendency of Agriculture and Veterinary Instruction (Superintendência do Ensino Agrícola e Veterinário or SEAV) in the Ministry of Agriculture. The Ministry of Education and Culture maintains some schools as do some private agencies. Like other educational branches, agricultural education has an Organic Law, Decree-Law No. 9,613, dated August 20, 1946, and containing the bases of organization, regulation, and instructions.

Agricultural schools are organized to include three types of studies—basic (formação), continuation (continuação), and advanced (aperfeiçoamento). There are 2 cycles of instruction, as in other secondary patterns of instruction. The first cycle is divided into 2 periods of 2 years each and the second cycle is of 3 years duration.

The 2-year beginning course of the first cycle accepts students who have successfully completed primary school and have met the entrance requirements, which are much the same as those for any other type of secondary institution. This beginning course is designed to equip the students with a good general, professional, and practical orientation to agricultural problems. The second 2 years in the first cycle aim to give students the greater mastery necessary for becoming foremen or master tradesmen.

The second cycle is one of greater specialization in any one of seven areas: agriculture, horticulture, zootechnics, veterinary practice, industrial agriculture, agricultural mechanics, and dairying. Additional courses are offered in education for those who plan to become teachers of agricultural subjects. These courses vary from 1 to 2 years in length, and prepare students for rural home economic programs, agricultural education, and administration of agricultural education.

The 2-year initiatory phase of the first cycle offers the following subjects:[4]

First year: Portuguese, Mathematics, Natural Science, Geography and History of Brazil, Agriculture, Drawing.

[4] Vandick Londres da Nóbrega. Enciclopédia da Legislação do Ensino. São Paulo: Emprêsa Gráfica da Revista dos Tribunais, LTDA, 1952. p. 255–257.

Second year: Portuguese, Mathematics, Natural Science, Agriculture, Stock Raising.

The mastery phase includes the following list of courses:

First year: Portuguese, Mathematics, Natural Science, Geography and History of Brazil, Agriculture, Stock Raising, Notions of Veterinary and Rural Hygiene, Agricultural Industries, Technical Design.

Second year: Portuguese, Mathematics, Natural Science, Geography and History of Brazil, Agriculture, Stock Raising, Notions of Veterinary and Rural Hygiene, Agricultural Industries, Rural Economy and Administration, Technical Design.

A sample course in the second cycle is that of industrial agriculture:

First year: Portuguese, French or English, Mathematics, Natural History, Physics and Chemistry, World History, World Geography, Technology, Preparation and Conservation of Animal Products, Preparation and Conservation of Vegetable Products, Technical Drawing.

Second year: Portuguese, French or English, Mathematics, Natural History, Physics or Chemistry, World History, World Geography, Specialized Technology, Preparation and Conservation of Animal and Vegetable Products, Technical Design.

Third year: Portuguese, Mathematics, Physics and Chemistry, History and Geography of Brazil, Specialized Technology, Agricultural Administration, Rural Hygiene, Technical Drawing.

Continuation courses emphasize practical aspects of agriculture for adolescents and adults who are not graduates of the first cycle of agricultural education. The purpose is to help individuals improve their skills, thereby becoming more productive workers. Advanced or improvement courses are more technical in nature and cater to those who have graduated from one or both of the cycles. These courses are postgraduate and are part of an adult education program.

Other aspects of agricultural education (admission policies, examinations, school day and year, transfers and articulation, and similar items) need not be further described because of similarities to programs discussed in previous chapters of this bulletin. Likewise, the objectives of these schools parallel those of other schools insofar as citizenship, morality, and conduct are concerned; however, variations are to be expected among the aspirations and concepts which deal specifically with the advancement of agriculture. The Nation is vitally concerned that agricultural education will lead to better methods of production and will enhance the total economy.

Enrollments

Agricultural education has experienced fluctuating enrollments. Table 22 shows a growth from meager enrollments in 1933 to peak enrollments after the Organic Law of Agricultural Education was passed—then a decline. It is difficult to explain reasons for this phenomenon, especially when all other types of institutions show steady increases and when the country is so dependent on agriculture in the economy. There is little doubt that the quality of instruction has improved and that emphasis has been placed on better training. The distribution of schools, teachers, and student enrollments by States and Territories is shown in Table 23. The Federal District, and the states of Ceará, Goiás, Maranhão, Mato Grosso, Paraná, Piauí, Rondônia, and Santa Catarina do not have any first-cyle schools in agriculture. Amapá is the only territory where such a school exists, and it had 4 teachers and 25 students in 1956. Seven States have 16 teacher-training schools with 121 teachers and 485 students.

Agricultural and Veterinary Colleges

The first agricultural school of advanced type opened in Bahia in 1877 as a part of a government institute (Instituto Imperial Bahiano de Agricultura). The second was founded at Pelotas, Rio Grande do Sul, in 1883 as the Eliseo Maciel School of Agronomy and 18 years later, a third, the well-known Luiz de Queiroz Superior School of

Table 22.—Number of agricultural schools and teachers, and number of students registered, enrolled, attending, promoted, and graduated: 1933, 1938, 1943, 1948, 1953, and 1954 [1]

Year	Schools	Teachers	Students				
			Registered	Enrolled	Attending	Promoted	Graduated
1	2	3	4	5	6	7	8
1933	6	86	267	.....	239	.....	34
1938	11	117	488	383	414	344	83
1943	22	198	681	691	880	515	257
1948 [2]	38	445	2,601	2,094	2,140	1,657	604
1953	38	425	1,413	1,268	1,169	1,128	422
1954	35	388	1,143	1,081	999	999	341

[1] Figures drawn from: Ministério da Educação e Cultura. Sinopse Retrospectiva do Ensino no Brasil—1871-1954. Rio de Janeiro, Serviço de Estatística da Educação e Cultura, Instituto Brasileiro de Geografia e Estatística, 1956. p. 20.

[2] The Organic Law of Agricultural Education had been passed in 1946.

Agriculture in Piracicaba, São Paulo. Between 1901 and 1945, 17 other agricultural colleges were founded in 11 States, but 8 of them had been closed by 1943, either voluntarily or because of unfavorable conditions. Today there are 12 agricultural colleges and 8 veterinary colleges.

The first veterinary college was established in Rio de Janeiro in 1913 in combination with an agriculture college (Escola Superior de Agricultura e Veterinária). However, this college moved several times until in 1948 it was finally incorporated in the Rural University at Kilometer 47 near Rio de Janeiro. Twelve colleges of this type were founded between 1913 and 1951, although 5 of them were later closed because of economic or academic difficulties.

The quality of agricultural and veterinary colleges is said to have improved steadily since 1934, when minimum standards were adopted. Law No. 933, passed in 1938, required all agricultural and veterinary colleges to meet the established requirements. Thus, students grad-

Table 23.—Number of agricultural schools, students, and teachers, by State and Territory: 1956 [1]

State and territory	Type of school					
	For beginners and farmers			For technical and teacher training		
	Schools	Students	Teachers	Schools	Students	Teachers
1	2	3	4	5	6	7
State:						
Alagoas	2	134	24			
Amazonas	1	32	6			
Bahia	1	64	8			
Ceará						
Distrito Federal						
Espírito Santo	2	122	15	1	27	5
Goiás						
Maranhão						
Mato Grosso						
Minas Gerais	7	532	74	5	182	45
Pará	2	144	18			
Paraíba	2	99	14	1	16	6
Paraná						
Pernambuco	2	122	18	1	76	10
Piauí						
Rio Grande do Norte	2	128	20	1	8	9
Rio Grande do Sul	4	209	49	6	141	24
Rio de Janeiro	4	377	35	1	35	20
Rondônia						
Santa Catarina						
São Paulo	6	415	121			
Sergipe	2	100	19			
Territory:						
Acre						
Amapá	1	25	6			
Guaporé						
Rio Branco						
Total	38	2,613	435	16	685	121

[1] Figures drawn from: Ministério da Educação e Cultura, Sinopse Estatística do Ensino Médio—1956. Rio de Janeiro [no date]. p. 13-15.

uating from these colleges could receive diplomas permitting them to serve in professional capacities.[5]

Early organization and general philosophy were influenced by institutions in France, Germany, Belgium, and other European countries. Emphasis continues to be placed on the basic sciences and theories. European influence seemed strongest before World War I, but during recent years, exchange of teachers and ideas with various countries of the Western Hemisphere has enabled Brazil to test other influences. North American influence appears in the Presbyterian College at Lavras, the veterinary colleges at Belo Horizonto and São Paulo, and in the Agricultural College at Viçosa, founded under U.S.A. sponsorship in 1928.

All colleges in Brazil are expected to conform to the general pattern set by the model National colleges. There is a trend toward federalization of agricultural schools despite opposition and even though most of the colleges were originally established as State institutions. The Federal Government has offered financial and other inducements to the colleges, but curriculum restrictions and fiscal controls accompany federalization.

Agricultural and veterinary colleges are administered by the Federal Government, the States, and (in one case) a private organization. At present there are nine such colleges under the Ministry of Agriculture and two under the Ministry of Education; eight are State administered, and one is church owned. The administrative head or director is appointed for 3 years from a list of three names submitted by the group of full professors known as the "Congregation." The appointment is made by the appropriate minister or by the governor, in case of a State institution. Since the director is selected and recommended by the professors in the college and since he must be on the staff of the same college, the possibility of employing a qualified person from the outside is eliminated. Like directors in other institutions of higher learning, the director of an agricultural and veterinary college is involved in a variety of regulatory, budgetary, fiscal, and reporting activities, and is often called upon to preside at ceremonial and social functions. His authority is limited by law and his activities are supported by a technical board of three professors and the congregation of full professors. The administration of the agricultural and veterinary faculties comes under the

[5] George W. Ware, and Lincoln Monteiro Rodrigues. Report on the Agricultural and Veterinary Colleges of Brazil. Rio de Janeiro: Escritório Técnico de Agricultura (ETA), 1954. p. 2. (Mimeo.)

same regulations as for all other higher educational institutions, and the ranking professor is similar. Many professors are employed on a part-time basis of approximately 18 hours a week, which follows the part-time tradition in Brazilian superior schools.

Students

About 4 percent of the total number of students in Brazilian higher education are enrolled in agricultural and veterinary science. The same entrance factors operate at the higher education level as at the secondary level. The members of the agricultural and veterinary professions depend almost entirely on government employment. Agriculture is still often considered an occupation lacking in dignity and social position, especially when compared to medicine, law, and the arts. In addition, since agricultural schools are relatively new in the school system, no traditions of attendance have been established among the student population. It must be kept in mind that the source of qualified secondary school graduates is small and that women do not enter agriculture as a profession. Expense is a limiting factor for the majority of Brazilian youths who might become candidates for agricultural degrees. This factor, however, is being reduced through board and tuition scholarships for qualified applicants. It is calculated that 20 percent of the agricultural and 12 percent of the veterinary students graduate. Data have not been compiled concerning the source and type of the students attending these schools, but it is known, however, that approximately 30 percent of the students of each school come from its immediate locality and that fewer than 5 percent come directly from farms. About 4 percent are from foreign countries.[6]

Instruction

Even though the selection process has already been accomplished in the secondary schools, only 47 percent of the agricultural and 44 percent of the veterinary college candidates are admitted. The screening is done primarily through entrance examinations.

The college course for agricultural and veterinary science covers 4 years. The curriculums are established by the model agricultural and veterinary colleges of the Rural University, and these become

[6] *Ibid.*, p. 10.

standard for all others in the Nation. For the most part, students may not select or specialize in subjects of their own choice.

The agricultural course for the 4 years is as follows:

First year: Mathematics, Agricultural Physics, Analytical Chemistry, Plant Anatomy and Physiology, General Agricultural Zoology, Descriptive Geometry, Field Work.

Second year: Agricultural Mechanics, Agricultural Geology—Soil Science, Agricultural Botany, Domestic Animal Anatomy and Physiology, Entomology and Parisitology, Organic Chemistry, Field Work—Horticulture and Forestry.

Third year: Topography, Roads, and Drafting, Plant Pathology and Microbiology, General Agriculture and Genetics, Animal Husbandry—Breeds and Genetics, Horticulture, Forestry.

Fourth year: Special Agriculture and Genetics, Animal Husbandry—Feeding and Management, Rural Technology—Agricultural Industries, Rural Economics, Laws, Accounting.[1]

Usually each course requires 2 to 4 hours weekly of lectures and the same amount of time in laboratory or field exercises. Students attend class 5 or 5½ days a week. Much of the class time is spent in taking lecture notes. Few textbooks are required and reference material is limited.

Military Education

All Brazilian boys must register for military service during the first 6 months of their 17th year of age and they may be inducted at age 18. Thus, some sort of military education touches the lives of the majority of male Brazilians. This has resulted in many boys learning to read and write, for military instruction has been their first exposure to formal schooling. The level of instruction in military schools ranges from the most elementary courses to complicated courses in advanced modern warfare. The military obligation in peace time is a maximum of 1 year, and much of the time is spent in training. An individual may be called for active service any time between the ages of 18 and 28. Exemptions from military duty are similar to those in other countries—physical, mental, or moral deficiencies. The nature and types of military and naval schools vary according to purpose and specialty.

[1] *Ibid.*, p. 14.

Aeronautics

The Ministry of Aeronautics organizes and maintains all educational institutions that train personnel for and within the Brazilian Air Force. The basic schools are divided into three categories: for training aviators and administrators of officer rank, for training officers to do specialized jobs, and for training aeronautical engineers.

Army

The General Staff of the Brazilian army is responsible to the Ministry of War for instruction within the army. The organization principally concerned with instruction is the Directorate of Instruction. A few schools, however, do not answer to the Directorate, but rather to distinct lines of authority within the Ministry of War. Courses are offered at the secondary education (ginasial) level; and for men who have had little or no formal schooling, primary education is given in regimental schools (escolas regimentais).

Navy

The Directorate of Naval Education is responsible for all instruction in the Brazilian Navy. The courses for officer education are taught in the Naval School (Escola Naval) at Rio de Janeiro. Entrance to this school is awarded by means of competitive examinations in mathematics, physics, chemistry, Portuguese; and a rigorous physical examination. The preparatory course lasts 5 years, and prepares for the advanced 4-year course. The advanced course is the technical phase, which provides indoctrination, technical studies, scientific work, and such laboratory work as is necessary to equip officers for technical jobs ashore and at sea.

Enlisted personnel in the Brazilian Navy have their initial training in naval apprenticeship schools, which accepts youths 17 to 19 years of age. The normal length of the course for apprentice seamen is 6 months, after which the men are sent to the fleet for sea duty.

Technological Institute of Aeronautics

At the end of 1945, permission was granted to the Ministry of Aeronautics to establish an institution of higher learning for research

and training of personnel in technical fields of aviation. The institution is known as the Technological Institute of Aeronautics (Instituto Tecnológico de Aeronáutica or ITA). It is located in the town of São José dos Campos. Serving a dual function for the Brazilian air force and for commercial aviation, the school trains personnel in aviation science.

The curriculums include a 2-year basic course for all students, and three specialized professional courses of 3 years each. These are *Aircraft*, covering design and construction of airplanes and engines; *Airlines*, dealing with communication systems, planning of airports, and organization of air traffic and transportation; and *Electronics*, including such navigational aids as radio and radar. The training in this school is not confined to aeronautical problems, but has a practical transfer in automobile and other mechanical industries. Special care is exercised to see that the basic course is free from overspecialization and that all courses keep abreast of current advances in the field.

The school's faculty currently represents many nationalities. The aim, however, is gradually to replace the foreign specialists with Brazilian professors and assistants, primarily ITA graduates. The ranking of professors is similar to that of North American universities—full, associate, and assistant professors, and instructors. Regular faculty meetings are held in order to coordinate the activities of the school and to keep faculty members apprised as to its total operation.

ITA students receive scholarships for board, room, and tuition, and a small monthly stipend for personal expenses. The number of students each year exceeds 300, and the number has increased each year. Candidates for the school are given competitive examinations (similar to those given candidates for any other engineering school) and also psychological tests for engineering aptitude. Students are dismissed from the school if they do not apply themselves in their studies, and a record of their progress is kept by the counselors. The Division of Students, the administrative branch concerned with the nontechnical part of the program, works closely with the student association, Santos Dumont Academic Center (CASD). This organization seeks ways and means to enhance student life at ITA.

A policy of self-discipline has become a tradition at the school, and students learn to respect their own organizational discipline. The student group frowns upon student strikes, a weapon sometimes used by students in various other institutions of higher learning. Recreational balance is provided by activities such as sports, athletics, dramatics, music, dancing, concerts, lectures, and motion pictures.

A Department of Industrial Relations has been formed to cooperate with the student organization and the ITA alumni association in the placement of graduates. Many commercial companies are interested in ITA graduates, and some offer advanced training abroad. Many officers in the Brazilian airlines take the regular courses at ITA.

Social Service Schools

There are 23 social service schools in Brazil today, located as follows: Federal District, 5; Niterói, State of Rio de Janeiro, 1; Maceió, Alagôas, 1; Manáus, Amazonas, 1; Salvador, Bahia, 1; Fortaleza, Ceará, 1; Goiânia, Goiáz, 1; São Luiz, Maranhão, 1; Belo Horizonte, Minas Gerais, 1; Belém, Pará, 1; João Pessôa, Paraíba, 1; Curitiba, Paraná, 1; Recife, Pernambuco, 1; Natal, Rio Grande do Norte, 1; Pôrto Alegre, Rio Grande de Sul, 1; São Paulo, 3; and Aracajú, Sergipe, 1.

The social service schools are mostly State and Government controlled. Some, like the Institute of Social Work of Catholic University of Rio de Janeiro, are at the faculty and institute level. The courses vary in length, the average being 3 years. Three choices of specialization are available—child welfare (setor de menores), social medicine (setor médico-social), and social work (setor do trabalho). Courses include Introduction to Social Service, Social Case Work, Social Group Work, Sociology, Statistics, Psychology, Ethics, Hygiene and Social Medicine, Religion, Social Legislation, Social Doctrine of the Church, Social Economics, and Social Research.

Emphasis is being given to social work in rural and urban areas, especially in the slum districts called *favelas* and *malocas*, where living conditions are subnormal. Social work also becomes a matter of basic education in health and hygiene practices, including treatment of diseases. The Government also operates special schools in nursing and public health to cope with health education needs. These schools are operated in conjunction with medical and public health services under the direction of the Ministry of Health and they cooperate with the schools of social work in carrying out assigned missions.

Chapter IX

The Teaching Profession

AN ORGANIZED ATTEMPT to train teachers and to recognize their qualifications through certification had its origins during the past 25 years, with the greatest impetus given the program during the past few years. Professor Gilberto Freyre points out that the training of secondary school teachers began to be systematic after the Faculties of Philosophy in São Paulo and Rio de Janeiro were founded. Until 1934, there had been little opportunity for systematic preparation. Secondary school teachers were chosen mainly from among those trained for other professions.[1]

The preparation of primary school teachers has been sporadic. Although the first publicly maintained teacher training schools were established as early as 1834, the extent of the training has been limited and the lack of it still poses problems. Professor M. B. Lourenço Filho cites a recent nationwide survey showing that 48 percent of the elementary school teachers had no professional training for their work.[2] In some States of more densely populated southern Brazil the proportion with no professional training is only 10 percent, however, and the public primary schools of the State of São Paulo have no "lay instructors," as teachers with professional training are called in Brazil. By contrast, in some of the north, northeastern, and west-central States, the proportion is about 70 to 80 percent.

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[1] Freyre, Gilberto. Brazil. *In* The Year Book of Education 1953: Status and Position of Teachers. New York: World Book Co., 1953. p. 536–557.

[2] M. B. Lourenço Filho. Rural Teacher Training in Brazil. *The Training of Rural School Teachers.* Palais Royal, Geneva: International Bureau of Education, 1953. p. 15–16.

One apparent reason for lack of training for elementary school teachers is that normal schools are the responsibility of the States and there is great disparity among States in their ability to finance education. Even the more prosperous States, however, have difficulty in staffing their elementary schools with professionally trained teachers. There are not enough normal schools to fill the need. Some States have only one and it is located in the capital. Nearly 70 percent of these normal schools are independently maintained and receive minimum supervision from official sources. The majority supported by tuition fees, are beyond the means of any prospective students. Enrollments are almost exclusively feminine. Many of the students do not intend to teach; still others are not permitted by their families or guardians to leave the city to teach in frontier areas.

Brazilians recognize that many shortcomings of the schools can be attributed to inadequate teacher training. Educators are endeavoring to face the problem. They have initiated additional training programs at the various levels of teacher education. Not only are programs and enrollments increasing, but the quality of instruction and curriculum is improving. Needs of the pioneer communities are being recognized as different from those of established communities, and needs of agricultural regions as different from those of industrial centers. In many communities sociological studies now precede curriculum changes as a basis for steps to increase teaching effectiveness and to attract more students. Curriculum expansion beyond reading and writing is recognized as necessary if the personal goals for children and the role of the school are to come closer together.

These needs have prompted the Federal Government to become increasingly active in teacher education. Since many States lack the economic base to assume financial responsibility, the Government is assuming a greater share of that responsibility. From UNESCO and the United States it has sought and received assistance to improve curriculums and teacher education as one means of raising its people's living standards and enhancing their stake in democracy.

The Organic Laws of Primary and Teacher Education emphasize the need for adapting school work to regional conditions and the importance of planning an equitable distribution of school plants according to population requirements. Special attention is being paid to the education of illiterates of all ages and Federal aid is being based on State planning for teacher education in proportion to numbers of teachers needed by geographical distribution. The organic laws obligate agricultural estates and businesses to provide schools and accommodate the teachers. The patterns of organization for teacher education have been based upon the Constitution, the appropriate organic law, and the research done by INEP.

Teacher Training Institutions

The organization for teacher education schools follows the general structure for secondary education as a whole. There are two cycles of studies—the basic 4-year cycle followed by a 3-year cycle designed for more advanced work.

The organic law provides for three types of institutions: The regional teachers training college, which offers basic training for assistant teachers (regentes) and provides teachers for rural areas; the normal, or teachers' training college, which offers more advanced training and furnishes primary teachers (professôres primários); and the institute of education, which offers a combination of regular and advanced courses including advanced training in educational administration.

The preparation of teachers for secondary schools is a function of the faculties of philosophy and letters and/or education. Teachers in the universities are drawn from university graduates who may or may not have had formal instruction in teaching.

Admission Requirements

Students who desire to become teachers must have completed elementary education and have attained age 13. The legal requirements have been spelled out in the organic law. In addition to passing an entrance examination, applicants must be Brazilian citizens, have good physical and mental health, be free from disqualifying physical handicaps, and be of good social disposition.

Much emphasis has been given by public authorities to encourage young people to prepare themselves for teaching, especially in those regions where serious shortages exist. Article 50 of the organic law makes provision for scholarships for students who will agree to teach in a given locality for 5 years after graduation. By way of attracting more students to train as teachers, public-supported institutions do not charge fees and private schools are given government subsidies so that fees can be waived.

Students who complete the 4-year basic course or the secondary school course (ginásio) are eligible to enter the normal school. The institute of education will accept students if they have finished the 7-year normal school course and have had at least 3 years of teaching.

Normal School Curriculum

The organic law established a minimum curriculum:

First year: Portuguese, General Geography, Natural Science, Drawing and Handwriting, Handwork and Domestic Economy, Physical Education and Choral Singing, Mathematics.

Second year: Portuguese, Mathematics, Geography of Brazil, Natural Science, Drawing and Calligraphy, Manual Work and Domestic Economy, Choral Singing, Physical Education.

Third year: Portuguese, Mathematics, Elements of Human Anatomy and Physiology, World History, Drawing, Manual Work and Economic Activities of the Region, Choral Singing, Physical Education, Recreation and Games.

Fourth year: Portuguese, Psychology and Pedagogics, Elements of Hygiene, History of Brazil, Theory and Practice of Teaching, Drawing, Choral Singing, Physical Education, Recreation and Games.

Stress is placed on the economic activities of the region and on manual training that affords a knowledge of the production techniques of the region. Students are expected to familiarize themselves with peculiarities of the community, including local life, customs, historical events, traditions, language, and the role of the school in community improvement. Each State may add to the list of subjects in order to allow for regional adaptation.

Certain prescriptions outlined in the organic law relate specifically to instruction. Teaching shall be clear, simple, and flexible, and attention shall be paid to seeing that: (1) Teaching methods are active; (2) the spirit and manner of teaching are in line with the moral and civic education of the pupils; (3) methods classes deal with objects, organization, and recommended approaches and procedures for each discipline; (4) practical instruction is given in the form of observation and practice teaching; (5) final classes in drawing, manual training, singing, physical education, and recreation give heed to elementary school methods, needs, and requirements of the region. Religious instruction may be introduced into the curriculum as an optional subject, with attendance not compulsory. Teacher training institutions are expected to foster student organizations which will create a spirit of cooperation and social service among future teachers. Provision is made for demonstration primary schools for observation and practice teaching.

Courses in the minimum pattern for the second cycle are listed below:

First year: Portuguese, Human Anatomy and Physiology, Physics and Chemistry, Drawing and Applied Arts, Music and Singing, Physical Education, Recreation and Games.

Second year: Biology and Psychology Applied to Education, Hygiene and Health Education, Primary Education Methods, Drawing and Applied Arts, Music and Singing, Physical Education, Recreation and Games.

Third year: Psychology and Sociology Applied to Education, Elements of History and Philosophy of Education, Hygiene and Care of Children, Methods and Practice in Elementary Education, Drawing and Applied Arts, Music and Singing, Physical Education, Recreation and Games.

State laws provide for adding subject areas not included above and local adaptations are encouraged.

Institutes of Education

Statutes relating to the institutes of education provide a guide for the person in charge to use in establishing courses. The types of courses include preschool and continuation class methods; methods of teaching drawing and applied arts and music and singing; training for principles, inspectors, and educational advisors; and school records and statistics.

Faculties of Philosophy and Letters

The path leading to certification of teachers for secondary schools is by way of graduation from an accredited faculty of philosophy, science, and letters. This type of faculty is a relatively new addition to Brazilian higher education, and teacher certification is even more recent. The first one came into being at the University of Sao Paulo in 1932. In 1949, 22 of these faculties were functioning and by 1955 the number had doubled to 44. Enrollments climbed from 302 to 12,495 students.[1] Although the rate of growth has been rapid, the existing faculties are not able to supply the needs of the secondary schools.

The increase in education faculties is a result of increased Government support, demand for teachers, and a greater emphasis on teacher certification. Providing an adequate staff and proper facilities for these schools has been a challenge of real concern among educational and governmental authorities. Plans call for stricter supervision over new and on existing establishments.

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[1] Campanha Nacional de Aperfeiçoamento de Pessoal de Nivel Superior (CAPES). Estabelecimentos de Ensino Superior, p. 4. Rio de Janeiro, 1956.

Teaching Ranks in Higher Education

Regulations regarding appointment and promotion of the teaching staff in higher education are laid down by Federal law. Instructors (instructores) and assistant (assistentes) are recommended by the head of a department and are appointed by the rector or head of the establishment. Associate professors (professôres adjuntos) and established full professors (professôres catedráticos) are appointed on a competitive basis, with the final appointment in the case of the latter being made by the President of the Republic. The other ranks held by the teaching staff are lecturers (livre docentes), professors under contract (professôres contratados), and teaching and research assistants (auxiliares de ensino). Their appointments are made by the university authorities for a definite length of time.

The large universities usually maintain as many as 11 departments within the faculties of philosophy, science, and letters. The University of Brazil in Rio de Janeiro has the following 11 departments: Philosophy, Mathematics, Physics, Chemistry, Natural History, Geography, History, Social Sciences, Classics, Modern Letters, and Educçation. Small universities and privately controlled faculties gear their operations to local needs and demands.

Normally, a student selects a department in which to do his major work, and the department, in turn, determines the subjects to be taken by the student. There may be some overlapping of courses among the departments in order to provide appropriate training.

Candidates usually are required to complete their academic subjects during the first 3 years of their university training, and then spend the 4th and final year in professional courses in education, observation of secondary students, and practice teaching. The practical work is accomplished in training schools usually supported by the institution for demonstration purposes. Graduates from the 4-year course may use the title of *licenciado*, while those finishing the 3-year liberal arts program without professional education courses are awarded the *bacharel*.

Evaluation and Certification

The elementary-teacher candidates are required to take monthly examinations. In addition, they are examined annually during the first two weeks in June. Part of the final examinations (provas fi-

nais) is written and part is oral. The scores on these examinations are averaged with those on the monthly tests to arrive at the mark for the year. Any person who has missed 25 percent of the courses is not permitted to take the final examinations.

Individuals who complete requirements for the first cycle of teacher training are given rural teacher (regente) certificates. The second cycle graduates are recognized as primary teachers (professor primário). Uncertified teachers may become certified by passing an examination set up specifically for the purpose. Appointments of elementary teachers generally are made on a probationary basis for a given length of time after which permanent status may be granted. The probationary period varies in length in accordance with individual State laws.

A recent effort to stabilize the certification of secondary school teachers and to encourage greater proficiency among those who have not specifically prepared to teach is reflected in Law No. 2430, dated February 19, 1955.[4] Administered by the Directorate of Secondary Education in the Ministry of Education and Culture, this law describes the scope of sufficiency examinations (exames de suficiencia) for teachers who do not hold a license from an accredited faculty of philosophy and provides for examining boards composed primarily of members of the philosophy faculties. When members of these faculties are not available, members of other faculties serve on the boards.

In-service Training

The Federal Government of Brazil, primarily through the leadership of the National Institute for Educational Studies, has been actively engaged in advanced training of men and women who are already teaching. One of the Government's most effective programs in this area has been the awarding of scholarships for advanced study, on-the-job training, and attendance at workshops and special courses. Each research center is providing, and is working to improve, facilities for in-service training. A new training school has been built in Salvador for laboratory and demonstration purposes. Facilities for teacher education at the new University City (Cidade Universitaria) of the University of São Paulo will be used almost exclusively for in-

[4] Atos da Administração Federal. *Revista Brasileira de Estudos Pedagógicos*. XXIII: 58: 299. Abril–Junho 1955.

service training. Improvement of administration and technical services is receiving similar attention under INEP leadership.

Special courses, conducted at local points to apprise teachers of more modern concepts of teaching and learning, stress the modification of instruction to fit the need and pecularities of individual regions. At these same local points, instruction is given to administrators and supervisors to help them improve their school programs—the first sustained effort to improve schools by providing in-service training to improve the qualifications of administrators.

Directors are organizing further training courses in different parts of Brazil for teaching and administrative personnel in secondary, industrial, and commercial education. Educational authorities emphasize that in-service training is particularly important in improving schools since this training frequently is the first professional training the teachers and administrative personnel have had.

Academic Freedom and Status

The Brazilian constitution guarantees academic freedom for teachers. They guard this freedom meticulously and consider any infringement of it as a violation of an individual's democratic right to freedom of speech.

At one time Brazilian teachers were considered among the social leaders of the community. Professor Gilberto Freyre [8] points out that a part of the country's heritage from Portugal stems from the Portuguese inheritance from Eastern peoples who attached great importance and prestige to their learned men and professors. Through the first half of the 19th century, an academic career or profession was the means for sons of modest urban families to compete intellectually and politically with sons of the landed aristocracy.

Professor Freyre goes on to say that industrialization has elevated the businessman and lessened the awe of academic knowledge. Unless supported by income from other sources, the economic position of teachers is not high. Women gradually have been replacing men in the teaching profession, especially at the elementary level where the change-over is almost complete.

Studies have recently been made concerning the prestige of the teacher in relationship to that of other occupations. Dr. Bertram

[8] Freyre, op. cit. p. 536–537.

Hutchinson,[6] who served in Brazil under UNESCO, has completed a study of responses from 700 students at the University of São Paulo which reveal that the elementary teacher was rated in 9th position in social prestige after the doctor, lawyer, priest, company director, journalist, farm proprietor, factory manager, and commercial manager. (Secondary and university teachers were not included in the list of 30 occupations in the study.) These findings do not differ radically from those reported by Juarez Rubens Brandão Lopes,[7] where an arbitrary socio-economic classification in 5 categories was compared with those of respondents.

The arbitrary classifications placed elementary teachers in the low and medium level socioeconomic group or next to the bottom. College professors were listed in the second group among the professions and the officers of the armed forces. Reportedly, students—regardless of their own station and that of their parents—were inclined to agree with the Lopes classification and with the Hutchinson study. The Brazilian citizenry has long recognized medicine, law, and engineering as preferred professions. Teaching is still honored but its former enviable position may be waning.

Salaries

As a result of inflation since World War II, Brazilian teachers' salaries in general have risen. However, mainly because of differences in local financial ability, they vary greatly. In 1957, salaries for elementary teachers ranged from 1,300 cruzeiros a month in the State of Paraíba to 4,200 in the State of Espírito Santo.[8] The southern States and municipalities have to pay 6,000 cruzeiros, or more, a month to hold teachers. In metropolitan areas, it is estimated that rent absorbs about 60 percent of the salary.

Teachers' salaries may be increased through promotions or through increments based on years of service and professional capacity. In the Federal District, teachers receive an automatic 25 percent increment every 5 years. Other areas give nonsalary cost-of-living adjustments (such as housing) or actual salary adjustments.

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[6] Bertram Hutchinson. Hierarchia de Prestigio das Ocupações Segundo os Estudantes Universitários. *Educação e Ciencias Sociais*, 1:2:29–8, Agosto 1956.

[7] Juarez Rubens Brandão Lopes. Escolha Ocupacional e Origem Social de Ginasianos em São Paulo. *Educação e Ciencias Sociais*, 1:2:42–62, Agosto 1956.

[8] The official exchange rate is 18.5 cruzeiros to $1 U.S. and the unofficial, between 60 and 80 cruzeiros per $1 U.S.

A secondary school teacher's salary is based on his rank or title. The most desired position (catedrático) might be translated into English as a "lecturer's chair." Persons of this rank enjoy the highest remuneration and a tenure which can be disturbed only by judicial action. Other categories of positions are assistants (assistentes), auxiliary teachers (auxiliares de ensino), supernumeraries (professôres de ensino secundário, extranumerários), and contract professors. The latter may be employed by the week, day, or hour. Certificated secondary school teachers may receive tenure after 2 years of service by virtue of their Federal or civil-service employment. Auxiliary teachers may receive tenure if they had 5 years of experience before the 1946 Constitution went into effect.

Secondary teachers are employed and paid by the municipal, State, or Federal government. The Colégio Pedro II pattern shows the following salary scale:*

Teacher	*Cruzeiros per month*
Catedrático	8,400
Certificated teacher	4,810
Auxiliary teacher	1,720
Supernumerary teacher (sliding scale)	6,080—7,320
Contract teacher (hourly rate)	100— 300

Catedráticos are entitled to a bonus after 10 years of service, amounting to the difference between their current salary and that for the next higher rating on the Federal officials' salary scale. Another increase occurs after 20 years of service, amounting to the difference between the actual salary and that for the next higher rating on the scale. Prior governmental service at any level is recognized in computing service for salary purposes. Certificated teachers are entitled to a 15 percent pay increase after 20 years of service, and an additional 25 percent after 25 years.

Teachers in the secondary schools maintained by the Federal District receive a beginning salary of 8,400 cruzeiros and an increase of 20 percent every 5 years until a maximum of 16,00 cruzeiros has been reached. In the State of São Paulo, where 55 percent of the secondary schools of the Nation are located, the initial salary of 5,500 cruzeiros a month is increased every 5 years at the rate of 400 cruzeiros a month.

Salaries of principals or head teachers are from 400 to 1,000 cruzeiros a month more than the salaries of certificated teachers. Teachers receive extra pay for extra services, and overtime work is compensated at the rate of 60–80 cruzeiros an hour.

* A Educação Secundaria no Brasil. Jayme Abreu, comp. Rio de Janeiro: Instituto Nacional de Estudos Pedagógicos (CILEME), 1955. p. 56.

As a general rule the pay of teachers in private schools is less than in Government schools. The Federal Government through the Secondary School Fund now has made provision for salary increases in these independent schools. A formula has been developed whereby a teacher is to receive a basic salary to which a portion of the student fees is added. If, for example, a teacher has 20 or 35 students, then the salary is increased by 10 to 20 percent respectively. The minimum salary is adjusted each 3 years in accordance with the cost-of-living index of the area where the school is situated.

It is quite common for men and for some women teachers to accept employment in addition to their teaching. The law permits them to work in related fields or to accept another government job, provided the extra work does not interfere with their teaching. It is common to see teachers giving private lessons, teaching evening classes, or teaching in more than one school. What constitutes a "related field" is not precisely defined in the law. Teachers who are dependent on their own earnings usually must supplement their teaching income, especially if they have families. Often teaching is the part-time job to supplement income from another occupation. Early historical precedent established this pattern when members of the learned professions assumed roles as teachers. Educators are striving toward a full-time teaching profession.

Welfare Benefits

Public school teachers contribute 5 percent of their salaries for medical, hospitalization, and retirement benefits under the Government Employees pension fund. Teachers in private institutions are covered by State supported systems of hospitalization insurance and retirement, for which they are required to pay 6.5 percent of their teaching salaries. Benefits are comparable for both public and private teachers. Nearly all of them are protected by National labor laws against loss or dismissal without cause.

Teachers receive special benefits when their work is terminated by illness, insanity, or injury. These benefits amount to full pay for periods lasting from a few months to 4 years, depending upon the laws of the locality. If the illness extends over a period longer than the amount specified by law, the contract is terminated and pension benefits go into effect, with the amount usually being determined by length of service and local practice.

Survivors' benefits are available to the family of the deceased. The amount usually depends on the contributions made by the teacher. In the case of Federal District employees, the amount is equal to approximately one-third of the salary.

Unemployment benefits are not applicable to public school teachers since they have tenure. Most plans permit retirement after 25 years of service and pay full salary upon retirement.[10]

Teaching Hours

The school day in elementary schools is not the same throughout Brazil. It may be 6 hours but where it has been shortened to accommodate more school shifts and, thus, more pupils, it may be as short as 3 hours and occasionally shorter. Where there are double or triple shifts, a different set of teachers and administrators may be used for each shift.

A similar situation is found in secondary schools, except that a teacher may be employed by the hour, the class, or the session. Tradition has been to employ teachers on a part-time basis, thus giving them time for other employment.

The average number of teaching hours per week for Brazilian teachers is around 22. The State of Santa Catarina requires 27, while the Federal District requirement does not exceed 20. Secondary teachers in the Federal District teach 18 hours a week, while in São Paulo the number is 12 plus an additional 12 for extra pay.

In most States, teachers are not required to be at the school at any fixed time before the opening hour. In some States, however, they must be there 15 minutes early. They are seldom required to remain after class hours.

The school year of 5 days a week begins in March and closes by mid-December, with a winter vacation in July and a summer vacation in January and February. This pattern is typical at all levels of instruction except for some variations caused by examination schedules at secondary and university levels. Teachers are paid for National and State holidays and for religious holidays, recognized by the National Congress or in the particular locality.

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[10] UNESCO. International Bureau of Education. XVIth International Conference on Public Education: 1963 (Publication No. 147), p. 89–91. Palais Wilson, Geneva: The Bureau.

Number of Schools, Teachers, Students

Table 24 shows that student enrollment in normal schools increased from 19,396 in 1934 to 57,293 in 1954 and that marked differences existed between the number of students enrolled and actually attending and between the nummber enrolled and graduating. Through scholarships and other motivation techniques, the Brazilians are attempting to narrow the gap between enrollment and attendance and to increase the number graduating.

By State and Territory Table 25 gives the number of schools, teachers, and students for the year 1956 in each of the two types of normal schools. Regional normal schools having 4-year programs are located mostly in the rural States; those having 7-year programs are located in the more populated areas. The industrialized and densely populated State of São Paulo has nearly three times as many normal training schools as all the rest of the country and more than half the students in the 7-year programs.

The latest educational statistics now available are for 1956 and they show that there were 76,995 certified and 66,154 non-certified teachers in elementary schools that year. Assistants in elementary schools totaled 7,231 certified and 4,413 not certified. The total number of teachers in all types of secondary schools was 67,750 with the largest number (30,272) in the ginásios, and the smallest number (546) in agricultural schools. The latter figure has special significance inasmuch as agriculture traditionally has been the basis for the Nation's economy. (Other figures for secondary education appear in Chapter V.)

Table 24.—Number of normal schools and teachers, and number of students registered, enrolled, attending, promoted, and graduated: 1933, 1934, 1938, 1943, 1948, 1953, and 1954 [1]

Year	Schools	Teachers	Students				
			Registered	Enrolled	Attending	Promoted	Graduated
1	2	3	4	5	6	7	8
1933	223	2,412	18,069	.....	16,983	.....	4,386
1934	274	2,739	19,971	19,396	18,418	18,139	5,068
1938	317	3,063	22,005	21,304	20,330	20,243	6,460
1943	397	3,129	22,547	21,724	20,351	20,504	6,528
1948	533	4,899	26,014	25,446	23,990	24,213	7,602
1953	749	7,204	46,724	45,899	41,008	42,617	14,529
1954	817	7,868	60,820	57,293	51,057	53,196	18,906

[1] Figures drawn from: Ministério da Educação e Cultura. Sinopse retrospectiva do ensino no Brasil—1871–1954. Rio de Janeiro: Serviço de Estatísticas da Educação e Cultura, Instituto Brasileiro de Geografia e Estatística, 1956. p. 21.

Table 25.—Number of normal schools, students, and teachers, by State and Territory: 1956 [1]

State and territory	Regional normal schools			Normal training schools		
	Schools	Students	Teachers	Schools	Students	Teachers
State:						
Alagoas	5	425	56	4	218	43
Amazonas	6	198	60	4	358	39
Bahia	5	313	52	32	1,958	325
Ceará				38	2,097	334
Distrito Federal				10	2,529	235
Espírito Santo				18	1,066	152
Goiás	19	593	125	18	557	152
Maranhão	3	98	19	5	337	55
Mato Grosso				8	310	81
Minas Gerais	13	949	135	132	6,803	1,273
Pará	4	211	29	6	423	66
Paraíba	9	615	90	6	188	62
Paraná	30	1,629	194	32	1,951	318
Pernambuco	16	1,479	158	29	1,751	302
Piauí	2	211	21	5	327	49
Rio Grande do Norte	16	523	152	3	226	43
Rio Grande do Sul	17	1,428	216	61	4,880	823
Rio de Janeiro	1	60	9	41	2,232	443
Rondônia	1	29	15	2	26	20
Santa Catarina	59	3,418	361	12	610	126
São Paulo				243	19,467	2,370
Sergipe	1	39	7	5	113	38
Territory:						
Acre	3	169	25	1	43	10
Amapá	1	16	8	1	3	7
Guaporé						
Rio Branco	1	77	15			
Total	212	12,380	1,748	716	48,471	7,368

[1] Figures drawn from: Ministério da Educação e Cultura. Sinopse Estatística do Ensino Médio—1956. Rio de Janeiro [n.d.]. p. 13–15.

Table 26.—Number of elementary school teachers, at 5-year intervals: 1933–1953 [1]

Year	Men	Women	Federal	State	Municipal	Private	Total (columns 2 and 3 or 4–7)
1	2	3	4	5	6	7	8
1933	7,736	45,267	.....	33,810	8,121	11,071	53,002
1938	7,818	61,510	.....	40,345	14,793	14,184	69,322
1943	6,856	71,740	3	45,040	18,514	14,519	78,076
1948	6,717	93,894	3	61,616	25,004	13,988	100,611
1953	8,809	125,860	12	82,575	35,868	14,914	134,369

[1] Figures drawn from: Ministério da Educação e Cultura. Sinopse Retrospectiva do Ensino no Brasil—1871–1954. Rio de Janeiro: Serviço de Estatística da Educação e Cultura, Instituto Brasileiro de Geografia e Estatística, 1956. p. 7.

In the same year (1956) there were 13,588 teachers in institutions of higher learning. Of this number, 1,059 were in education divisions of the faculties of philosophy and 2,555 in liberal arts subjects of the same faculties. Table 27 shows the number of teachers by faculties in the universities for six selected years from 1933 to 1954. During this period the greatest increase occurred in the faculties of philosophy, science, and letters; economic science; and engineering.

Brazilian Education Association

The Brazilian Education Association (Associação Brasileira de Educação), with headquarters in Rio de Janeiro, was founded January 16, 1924, to unite educators and other interested people in discussion and study of educational problems. The association works toward these ends through courses, conferences, excursions, and campaigns; reforms; educational exchange of persons on the local, national and international level; social meetings; and other activities compatible with its aims. One conference convened by this association was the 12th National Conference of Education held in 1956 at Salvador, Bahia. The agenda included the following topics: (1) The process of democratic education at the different educational levels and in extra-scholastic activities, (2) the contribution of schools to the understanding and employment of scientific discoveries, and (3) the present concept of humanism.

The association maintains a library of bibliographical service, and fosters research and publications. Its official periodical is *Educação* (Education). The outstanding educators of the country are among its members and the association has originated many innovations in Brazilian education.

Table 27.—Number of university teachers, by faculty: 1933, 1938, 1943, 1948, 1953, and 1954 [1]

Year	Faculty					
	Philosophy, science and letters	Law	Economic science	Medicine, dentistry and pharmacy	Engineering	Agronomy and veterinary science
1	2	3	4	5	6	7
1933	48	483	106	1,234	583	406
1938	822	511	123	1,430	642	451
1943	1,198	468	380	1,428	672	480
1948	1,298	510	662	1,392	1,228	441
1953	2,426	796	1,047	1,889	1,919	589
1954	2,886	815	1,143	2,064	2,333	574

[1] Figures drawn from: Ministério da Educação e Cultura. Sinopse Retrospectiva do Ensino no Brasil—1871–1954. Rio de Janeiro: Serviço de Estatística da Educação e Cultura, Instituto Brasileiro de Geografia e Estatística, 1956. p. 30.

Chapter

International Educational and Cultural Programs

AS MANIFESTED by their activities, past and present, Brazilians strongly desire to participate in international educational and cultural exchanges. The country has profited by international cultural cooperation, and at the same time it has much to offer other countries of the world. For many years it has demonstrated special interest in intellectual cooperation, setting up a 40-member Committee on Intellectual Cooperation in 1923. Reorganized in 1937, this committee was given a home in the Foreign Office.

The Pan American Conference at Buenos Aires in 1936 emphasized intellectual cooperation to such an extent that the resultant increased interest lead Brazil to create a Department of Intellectual Cooperation in the Brazilian Foreign Office. The Department was charged with the responsibility of overseeing national and international cultural activities and exchanges such as literary, scientific, artistic, student, and professor.[1] Cultural programs have greatly expanded during more recent years and many Brazilians are now traveling abroad in pursuit of educational experiences and sharing of ideas.

Bilateral Programs With the United States

The first United States technical cooperation program with Brazil was started in 1940. The original programs assisted in mineral in-

[1] Benjamin H. Hunnicutt. Brazil Looks Forward. Rio de Janeiro: Serviço Gráfico do Instituto Brasileiro de Geografia e Estatistica. p. 472.

vestigations, rubber development, and health and sanitation, and they were directed by the Office of the Coordinator of Inter-American Affairs, later known as the Institute of Inter-American Affairs. A broader basis for technical cooperation by Brazil and the United States was made possible by an agreement signed in 1950. At the same time a second agreement was made providing for a joint U.S.-Brazil economic development commission which would identify, plan, and recommend priority projects needed to develop Brazil's total economy.

The work of the Commission resulted in 41 planned development projects and the necessary instrumentation for loan applications to the International and Export-Import Banks. When the loan applications had been completed, the Joint Commission was terminated in December 1953 by mutual agreement. The Brazilian National Bank for Economic Development was designated to continue the work of the commission. The technical cooperation activities have been enlarged since 1953 to meet requests of the Brazilian Government. Also subsequent agreements have expanded services in agriculture, public health, industrial education, public and business administration, social welfare, transportation, and civil aviation.

The projects to which the United States is currently contributing aid are many and varied. Some of the particulars and objectives may be described briefly as follows:

In *agriculture*, assistance is provided to diversify and increase agricultural production, coordinate Federal and State extension services, improve storage, marketing and distribution facilities; to effect sound agricultural credit in rural areas; farm management and home economics; to improve irrigation, soil and water conservation practices; to improve the curricula of the Federal and State agricultural and veterinary colleges; and to give other basic cooperation.

Specific agricultural programs include the ASCAR Southern Association of Rural Credit Assistance project which provides technical assistance to farmers in Rio Grande do Sul in terms of rural credit and extension. Technical knowledge and know-how is disseminated by teams of Brazilian agronomists and home economists to farmers and their families. Two American technicians act as advisors to the Brazilian extension agents. Fazenda Ipanema in the State of São Paulo has become the center of graduate training for agronomists, home economists, and agricultural engineers, and it offers practical training to agricultural technicians selected country-wide. In Bahia and Espírito a research project is under way to develop disease-resistant trees. The resultant high-yield crops would help increase foreign exchange earnings.

In regard to *mineral resource development*, some 10,000 square kilometers of iron ore deposits are being surveyed, and an exploration is being made of areas where lead and zinc deposits have been reported. Cooperative geological surveys have indicated that $10 billions of iron and manganese are available. Metallurgy and mining practices are being improved.

Health and sanitation assistance is shifting from curative medicine, hospital management, public health nursing, and environmental sanitation on the Federal level to the strengthening of State public health departments to prepare them to assume cooperative health activities. The main objective is development of decentralized competency in the management of public health programs. A corps of American medical officers, nurses, and sanitary engineers are providing advice and training for Brazilians working in the SESP (Serviço Especial de Saúde Pública), a cooperative public health program created by joint action of the Brazilian Government and the United States Government through the Ministry of Health in Brazil and the Institute of Inter-American Affairs. The Brazilian technicians are working in all States and Territories to assist those departments already in existence.

Many *educational programs* are in progress. Some educative assistance has been proffered to labor and trade unions in the effective application of human relations and of management production techniques. Industrial education is receiving assistance through CBAI (Joint Brazilian-American Industrial Commission) to help meet pressing needs for better trained shop foremen and workers. A group of American industrial school teachers are working with teacher staffs of 23 Brazilian industrial high schools toward the improvement of their teaching methods. This is being done in various ways, including special summer school courses and demonstrations and followup consultations.

In cooperation with the Getúlio Vargas Foundation, a school of business administration was established in 1954, São Paulo, which offers the first 4-year college course in business administration in Latin America. Besides the Getúlio Vargas Foundation, ICA, and USOM, the following also cooperate with the school: The Ministry of Education and Culture through its agency CAPES; the Ministry of Labor, Industry, and Commerce (M.T.I.C.); Community of Industry and Business (Comunidade de Emprêsas e Negócios, C.E.N.). Some Brazilian professors are being trained on the job by a corps of Michigan State University professors and by specialized postgraduate training in the United States.

In 1957, the school had on its staff 8 Michigan State University professors, 5 Brazilian assistant professors trained in the United States, 9 part-time lecturers on basic subjects, 9 instructor assistants to the American professors, and 11 assistants specializing in the United States. In addition to the 4-year course in business administration, intensive short courses of 3-months duration are provided for persons with industrial management experience. Business conferences and seminars are special features of the school for alumni, experienced industrialists, and leaders in the business community. Research, publication, and postgraduate instruction contribute to the school's stature. The first graduates of the 4-year course received the Bachelor in Business Administration diploma in 1958. This degree is fully recognized by the Directorate of Higher Education in the Ministry of Education and Culture, and articulation is the same as for any other 4-year Brazilian college.

The course offerings follow those of business schools in the United States, and deal with economic institutions, judicial institutions, organization of business and industry, human relations, and business communication. Specific subjects are taught within the framework of these areas. It was planned that curricular experimentation would continue for 5 years, ending in 1958. Age distribution of the enrollees during the first 3 years was the following: Age 41 to 50—36; 31 to 40—91; 21 to 30—115. Jobs held by these enrollees were those of president, director, superintendent, manager, assistant manager, proprietor, department head, and so forth. The school's status and reputation is indicated by the fact that, by 1957, it had given instruction to employees of 209 companies.[1]

A project agreement was signed in June 1956 in response to a request by the Brazilian Government for help with a cooperative program in teacher education. Its purpose is to introduce and demonstrate to Brazilian educators methods and techniques in elementary education which they might analyze, apply, and adopt to meet their own community educational needs. The emphasis is on the creation, demonstration, and application of elementary education materials and equipment available in Brazil and elsewhere. Teachers who can demonstrate professional competence and performance, and can use the English language proficiently, are given opportunity to try for travel and maintenance grants for study in the United States.

The program is operating in Belo Horizonte at the Institute of Education (Instituto de Educação) and at its demonstration school,

[1] Escola de Administracão de Emprêsas de São Paulo da Fundacao Getúlio Vargas. Boletim Informativo. São Paulo. Papelaria e Tipografia Antigua, LTDA. 1957. p. 5–27.

under the direction of the Brazilian director of the National Institute of Educational Studies, the Secretary of Education of the State of Minas Gerais, and the Education Division of the United States Operations Missions to Brazil. It is a program primarily of teacher education. The activities and administration are under the direction of two co-directors, one from each country, who are supported by a staff of Brazilians and Americans. After studying at Indiana University in the United States, the Brazilian teachers who have been awarded grants return the Belo Horizonte to become a corps around which the actual training is conducted. Teachers from all parts of Brazil are brought in to Belo Horizonte to receive this training.

Another project agreement, signed in April 1956 with the Governor of Paraná provides for an American technician to work with officials in 10 counties (municípios) at the western frontier of the State and with governmental agencies in the area on a development program for health, sanitation, and agriculture. These educational activities are expected to improve local living conditions.

Such programs are typical of the type of cooperative endeavors being conducted by Brazil-U.S. agencies. In addition, many exchange-of-persons grants have been given for study in the United States. A typical breakdown of participants is shown for the year 1956 in table 28. In the exchange programs and technical assistance, it is customary for matching funds to be appropriated or obligated by Brazilian agencies. In the case of exchange programs, the Brazilian agency pays the round-trip travel and the salary of the participant while in travel and study status. The actual amount paid for salaries in 1956 has not been calculated, but travel expenditures amounted to about $290,000. Total dollar expenditures from 1942 to 1956 for U.S. aid programs are shown in table 29. Before Fiscal Year 1954, administrative expenses were included in program appropriations.

Table 30 gives a breakdown of 1956 expenditures by field of activity, showing U.S. and Brazilian counterpart obligations. The largest appropriations were awarded to health and sanitation, followed by agriculture. Education was third in Brazilian obligations and fourth in U.S. dollar appropriations. Brazilian cruzeiros were converted at two rates—37.06 (the amount that coffee exporters receive for their dollar earnings) and 72.50 cruzeiros per dollar (the average monthly rate of the dollar exchange on the free market during the period July 1955 to June 1956).

Table 28.—USOM Participant Training Program: Number of participants and amount obligated, by field: 1956 [1]

Field	Number of participants	Amount obligated	Field	Number of participants	Amount obligated
Agriculture	74	$175,880	Community development services	19	$63,150
U.S. Geological Survey	1	8,813	Audio-visual services	6	62,000
U.S. Bureau of Mines	3	15,000	Atomic energy	5	9,000
Air navigation aids	47	73,100	Inter-American Geodetic Survey	13	8,084
Engineering	10	27,700			
Labor	41	176,000	Total	333	1,088,940
Health and sanitation	50	168,798			
Education	38	142,445			
Public administration	39	179,700			

[1] Figures drawn from United States Operation Mission. Final Status Report USOM Participant Training Program. Fiscal Year 1956. Rio de Janeiro, 1957. p. 1. (Mimeo.)

Table 29.—Dollar expenditures for U.S. aid programs: 1942–56 [1]

Year	Expenditures for—		Year	Expenditures for—	
	Program	Administration		Program	Administration
1942–1948	[2] $4,449,661		1955	$[illegible]	$300,975
1949	[2] 435,913		1956	[illegible]	300,737
1950	[2] 666,369				
1951	[2] 9,143,145		Total	$1[illegible]	600,000
1952–1954	7,668,547	$158,038			

[1] Figures drawn from United States Operation Mission. Program Summary, USOM/Brazil. Rio de Janeiro, 1956. p. 2.
[2] Figure includes amount spent for administrative expenses.

Table 30.—United States and Brazilian counterpart obligations in aid programs, by field: Fiscal year 1956 [1]

Field	Counterpart obligations		
	United States	Brazilian	
		$1—cruzeiros 87.06	$1—cruzeiros 73.80
1	2	3	4
Agriculture	$730,318	2,543,984	1,800,419
Industry and mining	196,980	110,917	80,696
Transportation	541,405	98,996	68,043
Labor	276,714	15,000	7,967
Health and sanitation	822,776	15,076,092	7,708,482
Education	439,708	1,321,406	675,696
Public and business administration	808,849	822,781	420,857
Community development	191,571	110,775	80,825
Miscellaneous	196,486	79,891	60,882
Total	4,208,788	20,174,281	10,312,439

[1] Figures drawn from United States Operation Mission. Program Summary, USOM/Brazil. Rio de Janeiro, 1956. p. 2.

Private agencies have contributed to Brazilian development in the educational field as well as in commercial and industrial enterprises. A recent tabulation showed that religious groups sponsored 318 schools, 16 hospitals and clinics, 5 farms and agricultural educational centers.[3] Private foundations and U.S. business interests are also active in Brazil. The United States is the country with the largest private investment in Brazil, and this investment is increasing yearly. In 1956, 54 U.S. companies were operating in Brazil, representing 13 different types of businesses.[4]

The Rockefeller Foundation has been active in educational and research programs in Brazil since the early 1940's. The primary contributions of this private agency have been in medical research, medicine, and health problems relating to yellow fever and malaria epidemics. Much research has been done and help given toward eliminating devastation caused by hookworms. The Foundation has given large sums of money to the medical school of São Paulo, provided numerous scholarships for Brazilian doctors to study at the graduate level in the United States, and assisted a program for the guidance and advanced training of nurses. The Foundation's work has been considered oustandingly effective in assisting Brazilians with many of their medical and public health problems.

UNESCO in Brazil

The United Nations Organization from its beginning years has been active in Brazil. Much of the work is being done by projects in the Amazon Valley and Northeast Brazil. This work is concerned primarily with economic development in these underdeveloped areas. Educational developments are also being fostered and they are part of a major project which includes the extension and improvement of primary education in Latin America. This project will operate for 10 years, when, it is expected, the various countries will be able to proceed without further technical assistance.

The aims of the project are: To provide more opportunities for all children, to revise and improve the primary school curriculum, to provide bases for flexibility for urban and rural areas, to provide for in-service training of teachers, to help raise the status of teachers,

[3] Ibid., p. 8.
[4] Ibid., p. 8–12.

and to train a sufficiently well-prepared group of experts to carry on the purposes of the project. These aims, it is believed, can be carried out though effective and realistic planning, collection and dissemination of reliable educational statistics and other information, finding new sources of financial help, and training a staff of specialized personnel. The main emphasis will be on teacher preparation through preservice normal school training and inservice training, and on normal school staff training.

UNESCO has also been working in Brazil with the Brazilian Center of Educational Research on fundamental reform and reorganization of the country's primary, secondary, and technical education. To this project UNESCO has contributed the services of three experts, including a socioligist, an anthropologist, and an educational sociologist.

School for Public Servants

A new departure in Brazilian education is the School for Public Servants (EBAP), which has achieved fame throughout Latin America. The Getúlio Vargas foundation provided the initiative to begin the school, and the United Nations has cooperated through its technical assistance department by making regular contributions, offering scholarships to students of other nations, furnishing foreign professors when Brazilian teachers were not available, and sending Brazilians to foreign countries for advanced study. The need for such a school has long been felt in South America. EBAP trains present and future public servants from most South American countries. In 1955 the school had 320 students, of whom 196 were from countries outside Brazil. The average number of foreigners attending the school is approximately 60. Foreign candidates are selected by the Brazilian diplomatic missions. Students pay no tuition fees: they are awarded scholarships on the basis of need and merit. Ages range from 25 to 40. The UN usually pays 70 percent of the student's expenses, plus round-trip travel. EBAP pays the rest.

The full course at EBAP began with 3 years, but has been increased to 4 years in order to realize maximum benefit. Graduate courses cover 2 years for the education of public servants who have a minimum of 3 years' experience. Special 4-month courses for high government officials offer a concentration in any one of 4 fields—Organization and Management, Personnel, Financial or Supply Administration, and Public Relations. Graduates of the regular 4-year course take a combination of general requirements and professional subjects in order to

meet the standards of the Ministry of Education and Culture. Their degrees are honored and registered in the Ministry. Most of the professors have responsible positions in other institutions and work for EBAP on an hourly basis.

EBAP has served as an inspiration for similar schools founded later by its graduates in other Latin American countries. Their efforts undoubtedly could be duplicated many times without being able to fulfill the need throughout Latin America for trained personnel in public administration. Plans are being readied, however, for expansion and improvement of EBAP itself.[8]

Cultural Agencies

The Pan American Union of the Organization of American States has rendered yeoman's service to education and culture in Brazil as in all South America. This organization has been operating for over a half-century, fostering intellectual exchange through publications, student exchanges, and professorial exchanges, and as an adjunct to regular diplomatic channels. Its education division works vigorously to keep Latin American Republics apprised of recent educational changes and advancements. Brazil has profited and continues to profit from the Union's work.

The Brazilian-United States Cultural Institutes and Unions (Instituto Brasil-Estados Unidos) have done much to teach English and American culture in Brazil. The organizations, usually fostered under the direction of a U.S. cultural attaché from the embassy or consulate, are popular centers where Portuguese learn English and where in some cases Americans learn Portuguese. Many students have gained such proficiency in English that they have been able to take advantage of travel opportunities to the United States and/or other English-speaking countries. Some of the best language instruction has and is being accomplished in these centers.

The Institute of International Education in New York City fosters exchange of students and professors. It has provided scholarships and grants for Brazilians and North Americans alike. Most of the grantees have studied at the graduate level. The institution contributes much to help Brazilian students, as well as those from any other foreign country, become acquainted with American life and institutions wherever possible.

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[8] Georges D. Landau. School for Public Servants—A New Departure in Brazilian Education. *Américas*, 8 : 11 : 12–15, November 1956.

Various organizations offer exchange fellowships for foreign travel and study. The Brazilian higher education organization CAPES in 1957 awarded foreign scholarships to 32 Brazilians. Seven students went to the United States, 6 to Germany, 10 to France, 1 to Italy, 1 to England, 2 to Switzerland, 3 to Sweden, 1 to Japan; and 1 went both to Holland and the United States.

Many other exchanges and bilateral programs in Brazil are currently in operation with other countries. It is anticipated that such programs will continue to flourish, and Brazilians express the hope that many students from all other countries will visit Brazil for intellectual and cultural exchange of ideas.

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