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INTEGRATION OF THE NEEDS OF CHILDREN AND YOUNG PERSONS IN ECONOMIC AND SOCIAL PLANNING

presented by
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Note: This is a preliminary version subject to changes of substance and style.

Table of Contents

Table of Contents of Tables

/Number

Table of Contents of Figures

INTEGRATION OF THE NEEDS OF CHILDREN AND YOUNG PERSONS IN ECONOMIC AND SOCIAL PLANNING

Ifigenia M. de Navarrete*

I. INTRODUCTION

1. The aim of economic development, in its broadest sense, is to ensure the well-being of the people. The latter, in turn, contribute to economic development by taking part in the production, investment and consumption processes; and the men and women composing the population provide the materials and the means for their general well-being. Man is therefore at once the instrument and the goal of the economy. However, it is only fairly recently that renewed emphasis has been placed on training the population for economic development, and the inhabitants viewed from this standpoint have been given the name of "human resources".

2. The term "population" conveys the idea of the human being as an inhabitant of a population aggregate with all its problems but no special aim as regards his usefulness. "Labour force", or the economy of labour, suggests the human being as an instrument of production marketing his productive capacity. On the other hand, the term "human resources" relates the population to a development goal, i.e., as a factor capable of being utilized, developed and trained to perform useful social functions for its own benefit. In the light of this new conception, human resources training for production is as vital as investment in capital goods or the development of natural resources.

3. Key factors of the economic development process are:

(a) The proportion of income earmarked for investment, or capital formation;

(b) Education and training of the labour force;

(c) Technological changes in the functions of production;

(d) Organization of production factors.

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/Production factors

Production factors may be increased by stepping up capital formation, and also by improving the quality and productivity of the labour force. The human factor is becoming daily more important as a means of supplementing the application of other factors, since new techniques and systems of organization cannot be adopted without it. If a flow of capable and responsible human beings is to become a part of the production process within the next five, ten or fifteen years, the development of human resources must start with the children. Young persons will begin to be turned to account in the current or the next plan, since only a fraction will go on to higher education. Satisfying the needs of children and young persons is important in planning, not only for humanitarian reasons involving protection of the weak and dependent, but in the interests of a live, dynamic flow of human resources capable of being turned to account in national projects in the near future and also of reaping the benefits of present and future economic and social development.

4. The major needs of children and young people which can be met by the community through State action are:

(a) Public health, medical attention, nutrition and hygiene education;

(b) Social protection for the family (through social security schemes) and maternal and child welfare services;

(c) Public education, the emphasis being on vocational training and on the opportunity for play and recreation.

Although the resources used for satisfying these needs actually constitute consumption, as has always been recognized, they can also be an investment, and in the discovery of this fact lies the modern approach. In the short run such expenses raise the population's consumption, and do so substantially in view of the inequitable income distribution prevailing. If properly channelled, the resources concerned constitute an investment since they provide better vocational training. In the course of time, returns are forthcoming (as in the case of investment in infrastructure), while human yield increases and can become cumulative over the thirty or forty years of a worker's productive life.

5. The principles of the Declaration of the Rights of the Child, proclaimed by the United Nations in 1959, were taken as the general frame of reference for the subject under consideration. These principles, which should be made law in every free country, are set out below:

(1) "The child shall enjoy all the rights set forth in this Declaration. Every child, without any exception whatsoever, shall be entitled to these rights, without distinction or discrimination on account of race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status, whether of himself or of his family."

/(2) "The

(2) "The child shall enjoy special protection, and shall be given opportunities and facilities, by law and by other means, to enable him to develop physically, mentally, morally, spiritually and socially in a healthy and normal manner and in conditions of freedom and dignity. In the enactment of laws for this purpose, the best interests of the child shall be the paramount considerations."

(3) "The child shall be entitled from his birth to a name and a nationality."

(4) "The child shall enjoy the benefits of social security. He shall be entitled to grow and develop in health; to this end, special care and protection shall be provided both to him and to his mother, including adequate pre-natal and post-natal care. The child shall have the right to adequate nutrition, housing, recreation and medical services."

(5) "The child who is physically, mentally or socially handicapped shall be given the special treatment, education and care required by his particular condition."

(6) "The child, for the full and harmonious development of his personality, needs love and understanding. He shall, wherever possible, grow up in the care and under the responsibility of his parents, and, in any case, in an atmosphere of affection and of moral and material security; a child of tender years shall not, save in exceptional circumstances, be separated from his mother. Society and the public authorities shall have the duty to extend particular care to children without a family and to those without adequate means of support. Payment of State and other assistance towards the maintenance of children of large families is desirable."

(7) "The child is entitled to receive education, which shall be free and compulsory, at least in the elementary stages. He shall be given an education which will promote his general culture, and enable him, on a basis of equal opportunity, to develop his abilities, his individual judgement, and his sense of moral and social responsibility, and to become a useful member of society.

The best interests of the child shall be the guiding principle of those responsible for his education and guidance; that responsibility lies in the first place with his parents.

The child shall have full opportunity for play and recreation, which should be directed to the same purposes as education; society and the public authorities shall endeavour to promote the enjoyment of this right."

(8) "The child shall in all circumstances be among the first to receive protection and relief."

(9) "The child shall be protected against all forms of neglect, cruelty and exploitation. He shall not be the subject of traffic, in any form.

/The child

The child shall not be admitted to employment before an appropriate minimum age; he shall in no case be caused or permitted to engage in any occupation or employment which would prejudice his health or education, or interfere with his physical, mental or moral development."

(10) "The child shall be protected from practices which may foster racial, religious and any other form of discrimination. He shall be brought up in a spirit of understanding, tolerance, friendship among peoples, peace and universal brotherhood, and in full consciousness that his energy and talents should be devoted to the services of his fellow men."

6. The main purpose of the present study is to highlight some of the problems and obstacles arising in the planning of human resources at the stages of childhood and youth in a developing country, and to analyse the particular case of Mexico.

The study consists of a review of the characteristics and structure of the population: an examination of the social needs of children and young persons in respect of health and nutrition; an analysis of their needs as regards family and social protection, especially in so far as the social security system is concerned; and a projection of vocational education and training needs. Although the Mexican Government has done a great deal towards meeting those needs, it has not yet succeeded in drawing up a national economic and social development plan, and, therefore, its efforts are not integrated with planning. The Office of the President is at present engaged in preparing a programme of action for the public sector, to be co-ordinated, in its turn, with the national development plan.

7. After analysing the Government's work in this field, and with a view to quantifying the resources that should be used to satisfy these needs, a model was prepared for 1966-1970 which includes the following assumptions:

(a) Public health, medical, maternal and child welfare, and social security and protection services will continue to expand at the same rate as in the six previous years;

(b) Nutrition services will be intensified with a view to covering all pre-school age children in need of social welfare services. Hygiene instruction will be given to the mothers of these and all other children, through public health and social security services. School breakfasts will be both educational and nutritional and should be provided for all children of public schools who want them;

(c) The funds set aside for education will be increased to cover six years of compulsory elementary schooling for all children of school age;

(d) As regards medium-level education and vocational training, a model was prepared with the employment structure desired in 1970, on the basis of which an attempt was made to project the education pyramid.

II. POPULATION

Demographic trends in Mexico, as in other Latin American countries, are characterized by a spectacular and continuing drop in the over-all and child mortality rates and by a persistently high birth rate, which have had the effect of accelerating the natural growth rate.

In 1900 Mexico's population was estimated at 13.6 million inhabitants. It did not become twice as large until fifty years later (25.8 million in 1950), but it is bound to redouble in the short space of twenty years, to reach an estimated 51.1 million in 1970, the present population (1965) being 42.8 million inhabitants (see figure 1 and table 1).

The major factor of Mexico's rapid population growth rate, particularly since 1940, is the swift decline in the over-all and child mortality rates as a result of the spread of nation-wide campaigns and health practices, the extensive application of medicine and diet improvement in urban and, on a lesser scale, rural sectors, all of which has been achieved at a relatively low cost (see figure 2 and table 2). Statistics also appear to indicate an increase in the birth rate between 1920 and 1930 and, although these figures are less reliable in view of the defective registration of births, the rise in the birth rate does seem feasible after the civil war, once the revolutionary Government had consolidated its position.

During the six-year period 1965-1970 Mexico's population is expected to increase 3.6 per cent faster than before, while the over-all and child mortality coefficients will pursue their downward trend as consistent with the progress envisaged in health, nutrition and education.

In order to determine the magnitude of the needs of children and young persons, the composition of the population by age and sex will be analysed, and special attention paid to the growth of the group aged 0 - 14 years. These data are shown in table 3 and in the figures representing age pyramids. The sixties witnessed a substantial increase in all age groups, but more especially of 5 - 14 and 15 - 19 years, the annual growth rate being 4.1 per cent. The vitality of the 5 - 14 age group is due not only to biological factors involving greater physical resistance, but also to the successful results of the campaign waged against disease and the improvement in child nutrition, which represent two achievements to the credit of Mexico's social policy in the last few decades.

The 0 - 4 age group grew at an annual rate of 3.6 per cent during the period covered by the study, that is, at the same rate as the group aged 65 years and over and the total population. It is a significant fact that the oldest and the youngest age groups, which are physically the weakest and have the heaviest mortality and morbidity rates, today have the same capacity for growth and seem to represent the vitality of the whole of Mexico's population.

/Moreover, the

Moreover, the 15 - 64 age group comprising the labour force is increasing at an average annual rate of 3.4 per cent, i.e., slower than other groups which are economically dependent upon it and which at present represent 50 per cent of the population. The labour force growth prospects over the next ten years are not favourable with respect to the rest of the population. In other words, half the population has to be supported by those members of the other half who contribute to the country's economic and social development. The proportion of inhabitants under 15 years of age constitutes 31 per cent of the total population in the United States, and 25 per cent in the European countries.

However, as will be seen below, not all the potentially productive population is turned to account. In view of the small part played by women in economic activities and the large number of under-employed and unskilled workers, there is a wide margin for raising the employment and productivity levels of the labour force, if productive employment opportunities are increased.

The 0 - 14 age group represented 39.2 per cent of the total population in 1930, 45.5 per cent in 1960, and is expected to rise to 46.8 per cent by 1970. If the inhabitants aged 65 years and over - who have ceased to be fully productive because of their age - are also considered, the figures for the dependent population are: 42 per cent in 1930, 48.9 per cent in 1960, and an estimated 50.2 per cent in 1970 and 50 per cent in 1975.

The magnitude of the problem of Mexico's growing young population can best be appreciated from the age pyramids from 1930 to 1975 contained in figure 3. What stands out is the gradual flattening of the pyramid as its base broadens owing to the persistence of high birth and fertility rates and the rapid increase in the number of children.

This means that the State must be prepared to contribute increasingly to health, nutrition and education services for children and adolescents, whose number is rising at a faster rate than the productive sector of the population, and that planning should meet the social needs of the 0 - 14 age group which would represent 47 per cent of the total population in 1970 (23.9 million children and adolescents). Thus, the Mexican Government is faced with a consideralbe problem in terms of the health and nutrition needs of this group, while provision would also have to be made for the mothers, who are eligible for benefits in the sphere of health and family protection. The 5 - 14 age group has additional needs relating to education and would represent 28 per cent of the total population - or 14.3 million children in 1970 - (see tables 3 and 4).

1. Location and scattering of the population

On the whole, Mexico has a relatively low population density, although it is rising rapidly. There were 10 inhabitants per square kilometre in 1940, 13 in 1950, 18 in 1960 and it is calculated that there will be 26 in 1970. The proportion located in urban areas (over 2,500 inhabitants) increased from 35 per cent in 1940 to 43 per cent in 1950 and 51 per cent in 1960, and it is estimated that it will reach 60 per cent in 1970 (see table 5). The rapid urbanization process continues, but in the meantime the scattering of the population presents serious problems for the planner since it is impossible to provide isolated and sparsely populated areas, ill-supplied with communication media, with the social and urban services their inhabitants require. However, the problem of "scattering" tends to be exaggerated and it is the author's belief that it no longer constitutes an insuperable barrier in Mexico.1/ The number of rural hamlets and villages diminished, according to census figures, from 104,485 in 1940, to 97,604 in 1950 and 88,151 in 1960. On the other hand, the number of towns rose from 700 in 1940 to 1,461 in 1960. Actually, the important thing is not the number of small population centres but the distance between them and whether they are easily accessible to each other. If they are, consideration might be given to the establishment of public service centres so located as to serve several places at once. The principal building in these centres would house the primary school, besides which there would be a clinic and public health, social medicine, extra-educational, extension, agricultural, library and other services. If it is considered that 1,500 is the minimum number of inhabitants for which a complete school (for approximately 300 school-age children) and the other public services mentioned could be established to serve a radious of 10 kilometres, the area covered would be 316.14 square kilometres with a population density of 48 inhabitants per square kilometre. The 1960 Census records seven federal divisions with over 48 inhabitants per square kilometre and, according to projections for 1970, these will increase to eleven and cover 14.3 per cent of the national territory and 51 per cent of the total population.2/

The population scattered in places with fewer than 1,000 inhabitants dropped to 21 per cent in 1960, i.e., 7.6 million inhabitants, a figure which it is estimated will remain unchaged up to 1970 (15 per cent of the total population). On the basis of that system of approximate calculation, all the rest of the inhabitants should be provided with social services, at any rate wherever it is not physically impossible for them to benefit therefrom.

1/ If consideration is given only to the inhabited areas excluding deserts, sand dunes, mountains, etc., the real population density would be 40 inhabitants per square kilometre (Jorge L. Tamayo, Geografía de México, Vol. III, p. 395).

2/ The most densely populated States are: Distrito Federal, Estado de Mexico, Morelos, Tlaxcala, Guanajuato, Puebla, Hidalgo, Aguascalientes, Veracruz, Colina and Jalisco.

/If these

If these population centres are close to one another, or rather, strung out along the length of communication media, it would not be difficult to provide them with common social services once a decision had been adopted to that effect. The scope of this project can be appreciated only on the spot, or on the basis of very detailed maps in order to determine whether the places concerned lie within a given radious of action. A sample of three States (Veracruz, Guerrero and Querétaro) was taken for the purpose, and it was discovered that no more than 1 per cent of the population was physically scattered.3/

2. Human resources utilization and productivity

The proportion of working population in Mexico has never exceeded 35 per cent of the total. From over 34 per cent in 1900-1921, the proportion dropped to 29.8 per cent in 1940 (see table 6). Since then, despite the fact that Mexico has a young population, it has risen very slowly (31.5 per cent in 1960). Censuses show that a larger proportion of the labour force was represented by female workers at the beginning of the century than in 1930, when it shrank to 4.6 per cent. This is probably a reflection not only of the reluctance to admit women to paid employment, but also of the difficulties at the time of the revolution and the accompanying social upheaval and economic depression (see table 7). Between 1940 and 1960 the proportion of female workers increased at the accelerated rate of 8.1 per cent annually, and in 1960 they represented 18 per cent of the total labour force. If the above trends persist, the total working population will have increased by 32.7 per cent in 1970 and by 33.9 per cent in 1975, while employed female workers will represent 26.6 per cent of the total labour force in 1970 and 31.7 per cent in 1975.

However, the part women play is limited by their fertility, since a large part of their lives is spent having children, and this precludes or severely restricts their full incorporation in paid employment.

The social, cultural and psychological conditions influencing a drop in the birth rate make themselves felt on a significant scale when headway is being made in the industrialization and urbanization process, and when the educational levels of the inhabitants enable them to understand the workings of the reproductive process; and when their desire to better themselves and their children prompts them to resort to birth control measures. At the same time, new social, cultural and psychological patterns emerge, linked to new forms of work and urban life, which strengthen the material motives for wishing to control fertility. When this happens, there is a greater demand for skilled manpower and with it a stronger need for women to take part in the production process. The large-scale participation of women in economic activities is incompatible with high birth rates.

3/ See chapter V.

Table 8 shows the proportion of the economically active population represented by female workers and the birth rates for selected countries. In 1960-1961 female workers accounted for 30.1 per cent of the total productive activities in Switzerland, 36.7 per cent in Germany, 29.8 per cent in Sweden, 32.1 per cent in the United States and 39.1 per cent in Japan, while the birth rates were only 18.1, 18.3, 13.9, 23.7 and 17.2 per thousand inhabitants, respectively.

In Latin America, female workers play a far smaller part and the birth rate is much higher than in the above-mentioned countries. Thus, in Mexico female workers represented only 18 per cent of the economically active population in 1960-1961, while the birth rate - one of the highest in the world - was 46 per thousand. Other countries like Ecuador, Venezuela and Peru present very similar figures.

The extension of the period of instruction and training for female workers as the development process advances might well bring about a shift in the female age groups in which the highest marriage frequency is registered. A drop in the birth rate might then be expected, because the longer period of education and economic employment for women would compel them to adopt contraceptive measures and to defer the birth of their first child, as in the developed countries. Statistics show that 45 per cent of the women who married in 1963 were under 20 years of age, while 35.1 per cent of the marriages in other groups took place between persons of 20 to 24 years of age.

For the present, the study of interrelationships between population growth and economic development and their respective trends leads to the assumption that unless Mexico adopts a family planning policy its present demographic patterns will remain unchanged until after 1975, when lower birth rates might begin to be recorded.

It should further be considered that not all the economically active population is so utilized as to yield enough income to cover the barest living requirements. A proportion of the population does unpaid work for the family, mainly in unskilled activities of a seasonal nature in rural areas; 11.5 per cent belongs to unproductive age groups, including 79,000 children under 12 years of age (the legal minimum age for starting work in Mexico) and 484,000 children from 12 to 14 years who are just beginning their apprenticeship, as well as the inhabitants aged 65 years and over who in many countries are retired. In all, only 27.5 per cent of the labour force belongs to the productive age group (see again table 6).

If the productivity of the labour force is considered from the standpoint of the income obtained, it will be seen that, in 1960, 40 per cent of the economically active population, earned tiny incomes incapable of satisfying a family's health, nutrition and education needs, i.e., less than 199 pesos a month in agriculture and private services, and 499 in industry, trade and transport (see table 9). Low incomes are a feature not only of rural areas, which are self-sufficent in agricultural

/commodities, but

commodities, but also of urban employment in industry and services, although the majority of persons living in distressed circumstances are to be found in the agricultural sector.

Under-employment is another sign of the waste of human resources. It is common knowledge that this occurs when the withdrawal of a worker fails to reduce output, or reduces it by less than the average salary; hence, if he were transferred to other employment there would be an increase in the total product. This is tantamount to saying that his alternative opportunity performance is greater. It cannot be ascertained whether far the low performance levels of these workers are absolute, that is, if they are incapable of obtaining a higher income in any other alternative use, or whether their low productivity is relative, that is, if they are under-employed. In any case, insufficient income on so widespread a scale warrants the adoption of urgent measures to ensure that children and young persons of the present generation will be trained to obtain more productive and better paid employment in the immediate future.

III. THE HEALTH AND NUTRITION NEEDS OF CHILDREN

1. Development of medical care services

The bases of the population's health, life expectancy and productive contribution to the community are the medical care and diet enjoyed during childhood. Health and nutrition at a pre-school age play a vital role not only in ensuring survival, but also in determining a person's health and vigour for the rest of his life. Education may be considered a factor in improving the calibre of the population, while health and nutrition help toward that end and also tend to increase the number of inhabitants.

Emphasis on public health policy might well bring about a sharp drop in the mortality rate and become the prime agent of a demographic explosion. Such an increase, in its turn, might have the effect of showing down economic development if health programmes are carried out on their own without being integrated with over-all development plans whose aim is to raise investment and consumption on the basis of a sound population structure.

On the whole, public health has made great strides in Mexico during the last few decades. For want of one specific health index, the best indicators are still the annual over-all and child mortality rates, which have declined sharply, as noted above (figure 1 and table 2). Another method of determining health trends is by examining the growth of the 50 years and over age group, and noting the fact that it is keeping pace with that of the whole population.

The Government has done a great deal in the field of medical care services (see table 10). In 1958-64 the number of hospital beds increased at an annual rate of 10 per cent, the number of medical practitioners by 6.1 per cent, and the number of persons hospitalized for treatment in public health and other related institutions by 11 per cent. Hospitals were built in many parts of the country, including rural areas, and maternal and child care was considerably extended.

On the other hand, the unequal regional development is reflected in the unsatisfactory distribution of obstetricians in relation to the total population, by hospital, according to the 1960 figures contained in table 11.

In fact, the most progressive hospitals present the best ratio as far as health is concerned. In the Distrito Federal there were 8,410 medical practitioners in 1960, i.e., a doctor patient ratio of 596 to 1, which is more favourable than that existing in the United States (780), Germany (730) or France (930) in 1958. Nueva León had 1,135 medical practitioners, with a ratio of 986 to 1. North Baja California had 516 medical practitioners, or a doctor/patient ratio of 1,038 to 1; but this is exceptionally good compared with most other Mexico States. For example, there were only 6 medical practitioners

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and a doctor/patient ratio of 8,400 to 1 in Quintana Roo in 1960; 250 medical practitioners and a ratio of 7,056 to 1 in Oaxaca; 147 medical practitioners and a ratio of 5,840 to 1 in Zacatecas; and only 74 medical practitioners in Querétaro, with a ratio of 5,008 to 1. In the whole of Mexico there were 21,321 medical practitioners in 1960, that is, a doctor/patient ratio of 1,689 to 1 which, although it still falls short of the country's public health needs, represents considerable progress compared with other developing countries.

The number of inhabitants covered by the Mexican Social Security Institute increased by 17 per cent annually and maternity services and related surgery by 23 per cent annually between 1958 and 1964. The vigorous growth thus recorded far exceeds the population growth rate of 3.5 per cent annually.

If action to extend the existing medical services continues at the same pace in 1965-70 there will be 100,000 public or semi-public beds by 1970, i.e., 2 beds for every 1,000 inhabitants, without counting private beds of which the exact number is unknown, although estimated at not less than 20,000 in 1964.

The movement towards nationwide social security presents the best safeguards for protecting the health of the family, including that of the child up to the age of 16 or 18 years, according to the legal limits established. Mexico's social security service covered 6.3 million persons in 1964, and other independent systems (federal employees, railway personnel, the staff of petroleum and mining companies, and bank employees) covered 2.3 million; in other words, 8.6 million persons, or 20 per cent of the total population, were covered by social security systems.

2. Principal children's diseases

Within this general framework, an examination will now be made of the causes of death primarily affecting children and young persons. It is common knowledge that in the past few decades the incidence of infectious and parasitic diseases as a cause of death has been increasingly controlled, although they still amount for a high proportion of the total number of deaths. Tables 12 and 12-A show, in both absolute and relative terms, the proportion of deaths caused by diseases attributable to poverty and lack of hygiene (diphtheria, whooping-cough, measles, malaria, other infectious and parasitic diseases, anaemia, pneumonia, bronchitis, and pre-natal and infancy diseases). Altogether these diseases caused 55.3 per cent of the total number of deaths of persons of all ages in 1950, 55.1 per cent in 1955, 49.2 per cent in 1960 and 47 per cent in 1962. In other words, they have gradually declined, in both absolute and relative terms, over a period of twelve years. Such diseases as diphtheria, whooping-cough, measles and malaria have fallen off substantially. Malaria is no longer an important cause, as deaths dropped from 5.6 per cent in 1950 to 0.2 per cent in 1962. Others, such as pre-natal and infancy diseases, rose from 6.9 per cent in 1950 to 11.1 per

/cent in

cent in 1955, 12.5 per cent in 1960 and 12.3 per cent in 1962, a fact which might indicate either a deterioration in the conditions of the lowest-income families or a better system of registration owing to rapid urbanization. Anaemia also increased from 0.6 per cent in 1950 to 0.8 per cent in 1955 and 1960, and 0.9 per cent in 1962. Other diseases, although fluctuating during the period, remained more or less stable.

Over 51 per cent of the total number of deaths in the whole of Mexico occurred in the 0-14 age group; hence, a more careful investigation should be made in order to assess the relative importance of the major diseases, their trends and changes therein with a view to formulating public health programmes that will improve health conditions for children and young persons.

The figures available for the mortality rate of this group (0-14 years) cover a very brief period - 1961-63 -, in the course of which it dropped from 53 to 52 per mil (table 13). Although no generalizing is possible on the basis of these figures, presumably the population growth and rapid urbanization process constitute an obstacle to any substantial improvement in the composition and rate of child morbidity in Mexico.

Tables 13-A, 13-B, 13-C and 13-D show the chief causes of death in the following age groups between 1961 and 1963: under one year of age, 1-4, 5-9 and 10-14 years.

It will be noted that infancy and pre-natal diseases are the principal causes of death among children under one year of age, accounting for 42.8 per cent of the total number of deaths in that age group in 1961, 41.4 per cent in 1962 and 43.3 per cent in 1963. Bronchial pneumonia and bronchitis take second place with 23.7 per cent of the total number of deaths in 1961, 24.3 per cent in 1962 and 24.7 per cent in 1963. Thirdly, gastro-enteritis, colitis and diarrhoea caused 21.1 per cent, 21.8 per cent and 19.2 per cent of the deaths of children under one year of age during each of the three years concerned.

Bronchial and intestinal diseases have a high incidence because they cause the death, in particular, of undernourished and anaemic children of whom there still are a great many. The evolution of each of these diseases can be measured only by a time series spread over ten years, since results over a shorter span might be influenced by accidental factors, such as epidemics. Hence, the best procedure is to determine the proportion of each disease as a percentage of the total, instead of its course over the period concerned.

In the next age groups, infancy and pre-natal diseases are obviously reduced to a minimum. The former continue to predominate, although they diminish as children grow older, except in the case of avitaminosis and other deficiency diseases which have a fairly marked incidence as from the age of one year. Thus, these diseases in the 1-4 age group dropped from 4.4 per cent in 1961 and 1962 to 3.9 per cent in 1963. In the higher age groups their incidence declined gradually to 2 per cent and under among children aged 10 to 14 years.

/This indicates

This indicates that as children develop and grow stronger they are less likely to die of disease, but the diseases themselves are not erradicated because of the deficient control exercised over them as a result of the conditions prevailing in many under-developed areas.

Another disease that particularly affects children under 10 years of age is anaemia, which reaches very high figures and is of frequent occurrence, especially in rural and semi-rural areas where it affects 27.2 per cent of the women and over 20 per cent of the children of pre-school age.

If consideration is given to the high child mortality indexes still prevailing, it is concluded that the rate could be reduced in the future as maternal and child welfare services continue to spread and, in particular, steps are taken to improve nutrition, as will be seen below.

3. Nutrition as a basic factor of public health

There is a close correlation between economic development and the level of nutrition. Countries registering the highest food and animal protein consumption are the most developed, and those consuming the poorest diet have the lowest income levels. Thus, food consumption levels improve both in quantity and quality as countries increase their agricultural and industrial output and produce surpluses which make for sustained growth.

As can be seen in table 14, the relationship between income, nutrition and pre-school child mortality is quite clear, except in Egypt where income levels are lower but the population absorbs more calories than in Mexico.

Nutrition is also a determining factor of work performance as regards both quality and quantity. A poor diet reduces physical work capacity and yield, and undermines accuracy.

The foregoing considerations are quite understandable since the body does not create energy but merely transforms it; therefore, there is a strict calorie balance and the work done must be proportional to the food consumed. A high work capacity is impossible for a population suffering from hunger or malnutrition.

Undernutrition is at present one of Mexico's basic publich health problems. The following is a diagnosis made by Dr. Adolfo Chávez, one of Mexico's leading experts on the subject:

A. There are two kinds of data which throw light on the population's calorie absorption, those on food supplies obtained from food balance sheets and those on food consumption at different socio-economic levels, obtained through direct on-the-spot surveys.

/(1) Food

(1) Food balance sheets show the following figures for the daily per capita supply of calories for human consumption throughout the country: 2,470 calories in 1958, 2,270 in 1959, 2,390 in 1960, 2,260 in 1961 and 2,320 in 1962. The marked fluctuations are due to irregular production, widely varying consumption and an unsatisfactory import-export balance. A country starting along the road to development is deemed to need a daily per capita supply of over 2,600 calories, but as Mexico has in the main a young population, a minimum of 2,450 calories might be considered adequate.

(2) The real calorie absorption by each sector, according to direct surveys of the population as a whole, is as follows: 2,340 calories in medium-level urban areas, 2,240 calories in suburban or semi-rural areas, and 2,145 calories in rural areas. The figures for children aged 1 to 4 years in the same areas are: 1,070, 987 and 885 calories, respectively.4/ As can be seen, there are marked disparities between sectors, especially in the case of children. The population at large should absorb approximately 2,280 calories, and children in particular, 1,200 calories.

B. The same type of data are available for protein absorption.

(1) Food balance sheets show an apparent absorption (supply) of 72 grammes in 1958, 66 grammes in 1959, 67 grammes in 1960, 65 grammes in 1961 and 65 grammes in 1962, thus indicating a moderately downward trend. The daily protein intake should be 75 grammes. The following quantities of animal - or good quality - protein were available for those years: 19.1 grammes, 18.9 grammes, 18.5 grammes, 18.5 grammes and 18 grammes, a very deficient diet inasmuch as the accepted minimum compatible with a satisfactory level of social development is 25 grammes. These figures also indicate a steady decline over the period concerned.

(2) The direct surveys reflect a total protein absorption of 56 grammes and an animal protein absorption of 9.2 grammes in the rural sector; 67.5 grammes and 22.3 grammes, respectively, in the suburban sector; and 86.1 grammes and 28.5 grammes, respectively, in the urban sector at a medium socio-economic level. Minimum requirements are 64.3 grammes of all proteins and 21.8 grammes of animal protein for the whole population.

The daily protein absorption of pre-school children is very low, i.e., 25.1, 28.6 and 32.6 grammes in total, and 8.2, 10.5 and 14 grammes of animal protein in each of the groups mentioned above. Minimum requirements are 40 grammes of all proteins and 20 grammes of animal protein, and this shows that not even children in urban areas and in the sector at an acceptable social and economic level eat enough for proper physical development.

4/ Areas were classified as semi-rural or suburban on the basis of the following criteria: the existence of (a) population employed in non-agricultural activities; (b) piped water in dwellings; (c) electricity; (d) complete primary school; and (e) a "B" health centre.

A Mexican family absorbs an average of about 400 grammes of protein daily, although there are marked disparities between the different regions and economic levels in quantity and, above all, in quality.

C. Various studies have been carried out on undernutrition frequency, with the following results:

(1) Undernutrition of children is the biggest problem, although there are also cases among adults, such as pregnant women, nursing mothers, old people and the population at large in problem areas (especially the indigenous settlements in the south and south-east).

(2) Child undernutrition in the second degree, as manifested by seriously arrested growth and other signs of nutritional deficiency, affects 32.3 per cent of pre-school children in the rural sector, 18.6 per cent of those in the semi-rural or suburban sector, and 4 per cent of those in the medium-level urban sector. 5/ This is Mexico's most serious problem.

(3) Child undernutrition in the third degree, or children seriously ill for want of food, may be found in 2.5 per cent of the children living in rural communities, and in 1.2 per cent of semi-rural or suburban children.

(4) Certain parts of Mexico are affected by various endemic nutritional diseases. The most important area so affected is the Yucatán peninsula where every year over 3 per cent of the rural population suffers from pellagra, and endemic zerophthalmia (avitaminosis A which can cause blindness) also exists among children on an undetermined scale.

(5) Among the deficiency diseases affecting the population at large, anaemia constitutes a major problem since in tropical areas, for example, it attacks 15 to 25 per cent of the children and female population. Although the figures for the highlands of Mexico are somewhat lower, they are nevertheless considerable.

5/ First degree undernutrition: a state of insufficient food and a low level of tissue development, but the body functions are normal. Second degree undernutrition: malnutrition or chronic undernutrition. Abnormality of body functions; arrested growth; impairment of physical and mental maturity; loss of weight, anaemia, skin changes, etc. All these symptoms may occur either separately or together. Third degree undernutrition: acute or serious undernutrition. The person is seriously ill; signs of the atrophy of organs; serious asthenia, mental retardedness, apathy; arrested growth in children; skin trouble, eye and bone injury, and anaemia.

(6) Between 12 and 15 per cent of all Mexicans have goitre, specially in the endemic sierra and gulf areas to the south.6/

Figure 4 shows clearly the havoc wrought by malnutrition among men, women and children in both rural and urban areas.7/ Anaemia affects 27 per cent of the women and 20 per cent of the pre-school children in rural areas.

The physical growth of 25 per cent of the rural children and 6 per cent of the urban children is arrested. These figures are borne out by somatometric studies and X-rays. Disease caused by under-nutrition affect 2 per cent of all children under five years of age, and one out of every ten children in rural areas of about 2 years of age, i.e., shortly after weaning.

This alarming situation is the result of the poor quality of certain foodstuffs.

The basic problem in regard to the rural sector's diet lies in its low protein content, i.e., 56 grammes daily per head. Moreover, the protein is of poor quality since it is obtained primarily from beans and maize, which are lacking in the essential amino acids; only 20 per cent of the total protein absorbed is of animal origin. Although rural population's diet has improved, its composition is still inadequate since the staple foods are maize, certain vegetables, sugar, bread and alimentary pastes, and only ocassionally food of animal origin. The urban population's diet is better; they eat less maize and more milk and other foods of animal origin.

The Mexican population's diet is also incapable of satisfying other nutritional requirements such as, vitamin A, riboflavin and ascorbic acid, as will be seen in table 15.

The average situation mentioned above differs from community to community, from family to family, and even between the members of a family, in a given study and in a given place.

In the urban area, studies have shown that the higher the socio-economic level of the sectors concerned the better is their diet. The figures in table 15 apply mainly to the families of workers earning about 1,000 pesos a month. However, even in the most homogeneous communities there are disparities between families and a fluctuating proportion of them endure worse than average conditions.

The worst dietetic conditions are to be found among the indigenous communities in the south-east - Yucatán, Chiapas and Oaxaca -, while the northern and coastal communities enjoy better conditions. Studies of the Altiplano reflect an intermediate position, which is therefore closer to the figures presented here.

6/ Data furnished directly by Dr. Adolfo Chávez.

7/ Dr. Salvador Zubirán, El problema de la nutrición en México, Mexico, 1964.

The studies carried out by the National Nutrition Institute (INN) show that children are generally given a slightly better quality protein, but the difference is very small and incompatible with their greater needs. Furthermore, it should be pointed out that in all rural areas there are a great many taboos in relation to child nutrition and perhaps the most harmful involves suppressing the most nourishing foods whenever illness strikes.

Some problems which aggravate the situation at the family and community level are: ignorance of the nutritive value of foods, unsatisfactory child nutrition techniques, prejudices and bad food habits, inadequate food production techniques, outmoded food storage and distribution systems, etc.

The unsatisfactory food situation prevailing in Mexico is the cause of many of the health problems affecting the population. Obviously, as shown above, the problem is more acute in the country than in the town, and in the case of children than adults.

This state of instability affects large numbers of the population whose nutritional reserves are at a low ebb, and it is only through a process of conservation and adaptation that they keep in apparently good health with few outward signs of malnutrition, a fact which is of paramount importance. This undernourished segment of the population is what keeps the child mortality rates so high, since in sixteen communities studied a close correlation ($r = 0.95$) was found to exist between the absorption of good-quality protein and pre-school age mortality on the one hand, and growth on the other, a fact which reveals the importance of a sound diet if adequate growth and health levels are to be attained.8/

In order to deal with this problem systematically, the National Institute for the Protection of Children (INPI) was established in 1961, with the purpose of providing needy children attending pre-primary and primary school and Nutrition Orientation Centres with food rations and supplementary welfare services, in particular through the distribution of free breakfasts. The Nutrition Orientation Centres propose to improve the diet of pre-school children and their families in low-income population centres, educating them to prevent malnutrition, selling milk cheap to the mothers requiring it and providing them with medical care during pregnancy and nursing. Preferential attention is always given to the neediest children and families.

8/ That the number of deaths caused by measles should be twenty times higher in Mexico than in a number of other countries is an indication not that the disease is more frequent or more serious there, since it is the same virus and practically all children contract it, but that Mexican children have scant resistance to the disease.

School rations consist of a pint of milk, bread, meat (once a week); beans, sausages or eggs (twice a week); fruit (usually bananas) or a sweet, and are intended to make good the deficiency of protein, energy-producing componentes and vitamins. Altogether, the rations contain one-third of the normal daily requirements of nutrients and, in particular, a larger proportion of vitamins A and B_2. In this way, the school breakfast serves to supplement a deficient diet and enables better results to be obtained from the educational programmes, by considerably improving the children's performance. INPI is responsible for preparing the rations through a nation-wide network of milk reconstitution and bottling plants which, in their turn, are responsible for delivery destination.

The rations are distributed according to the school calendars, the schools themselves being entrusted with their actual distribution after delivery arranged by INPI.

The Institute itself has set up tuna and guava processing plants as sources of certain essential raw materials of the special quality utilized. INPI nutritionists discovered that these two fruits had an exceptionally high content of vitamins and other rich minerals and calories.

There are 124 Nutrition Orientation Centres in the whole of Mexico.

In 1959, 80,000 breakfasts were distributed daily in the Distrito Federal; by 1964 2.5 million over the whole country, but by 1965 they had declined to 200,000 in Mexico City and approximately one million in the rest of the country, because the stocks INPI received from the United States Government had suddenly come to an end.

INPI's activities are supplemented by those of other institutions, such as, INN, the Ministry of Public Health and Welfare, the social security institutes and the National Institute for the Indigenous Population.

In 1964 the Ministry of Health had 3,137 public health units to take care of the population: 731 hospitals, 472 health centres, 274 rural co-operative medical services, health units, maternity wards, homes, day-care centres, nutrition orientation and agricultural promotion services, etc., which looked after 3.4 million children - 1.2 million in rural sectors and 2.2 million in urban sectors. Altogether a total of 15.1 children have been taken care of in the past six years.

The food rations were distributed on the basis of a prior study of each child's social environment, amount to approximately 48 million annually, or 160,000 daily on 300 working days a year. 9/

9/ Ministry of Health and Welfare, Memoria, 1958-64.

The Compañía Nacional de Subsistencias Populares (CONASUPO) is a State-owned enterprise intended to promote the production and distribution of foodstuffs for the low-income consumer. It regulates the grain market (maize, wheat, beans, rice and sorghum) and through its retail shops and lorries, sells such nutritious foods as dried fish, reconstituted milk, grain and other staples at low prices in densely populated areas, especially of Mexico City.

Although considerable headway has been made, as noted above, it is imperative to maintain the rate at which the population has been provided with medical care services and to intensify nutrition programmes, which should be regarded as supplementary to education services and as necessary factors of general well-being rather than as social welfare aid. In the following chapter an attempt will be made to integrate these needs with national planning.

IV. SOCIAL PROTECTION FOR THE FAMILY AND CHILD

1. Strengthening of the family and child protection

The protection of children and adolescents constitutes a social problem that is linked to Mexico's future development in all spheres. Hence, this problem should be tackled within the framework of competent social institutions. It is common knowledge that the family is the best social institution for satisfying an individual's basic needs, specially during the earliest years of his life. The constitution of a family entails, in the first place, the essential mission of ensuring the continuing replacement of the members of a community; secondly, nutrition, care of the child's health and his introduction to social relationships; and later, during adolescense, preparing him to take his place in society through education in the broadest sense of the term.

The family is indispensable in keeping the members of the community operating efficiently, since it is a small enough unit for its members to assume mutual responsibility for their physical and mental well-being. The confidence imbued in an individual as a member of a primary group affording affection and protection upholds him in the part he plays in society and gives him a sense of security in all he feels and does.10/

Thus, the family represents a person's first experience of social participation and frames his attitude towards the attainment and acceptance of a social status and function. It also gives him his initial status in the community.

In practice, the need for social protection is tending to be met more and more by specialized public sector institutions which afford complete social security not only for the child but for the whole family. Education in its formal aspect has long constituted in itself a specialized social institution the better to carry out its function, and the State is playing an increasingly important role in nutrition, by providing breakfasts for all school-children and cheap nutritious foods for the low-income sectors.

However, the family continues to provide the best atmosphere for satisfying the protection needs of children and adolescents. The action of the State and State institutions should not attempt to replace the function of the family, but should support it and strengthen it, specially inasmuch as the lack of resources and means of a great many families prevents them from duly fulfilling their functions and places them and the children concerned at a disadvantage in regard to opportunities, which is incompatible with the universal conception of a democratic community.

10/ Leonard Broon and Philip Sleznick, "Sociology" (Adapted Readings), Row, Peterson & Co., Evanston III, 1955.

/Moreover, the

Moreover, the family and the social structure of the population are closely interdependent. The majority of families reflect the characteristics of the social structure, its evolution and contradictions, and the prevailing levels of living and well-being.

For example, at a certain level of income, economic problems tend to undermine family stability and solidarity. Inasmuch as certain material levels of living have an essential value in family life, a reduction in income impairs family relationships. Poverty has a lesser impact on personal relationships when it is a widespread phenomenon affecting the low-income sectors or broad segments of the population, as occurs in the developing countries. Here, the far from dynamic communities are accustomed to low living levels at which family relationships are ruled by custom and tradition. This usually means stronger family ties than those existing between the members of high-income families in the developed countries. However, family solidarity is not enough to raise the group out of its penury, nor to make it comply efficiently with its basic social functions, i.e., the health, nutrition and education of its members. For this reason, it often happens that the persons least fitted from those three points of view to carry out their economic and social role in the community are the members of poverty-stricken families whose physical strength and mental capacity are greatly limited by their original health and nutritional inadequacies and their lack of education.

2. Factors militating against family well-being

(a) Personal income distribution

The situation described above still applies to large sectors of Mexico's population. Although the over-all per capita income level is low - 360 dollars a year -, it compares favourably with that prevailing only a few years ago, and with that of many other countries at a more backward stage of development. The aggravating factor is the unequal distribution of income. Unfortunately, there are no recent data available on income distribution, and although recent surveys have been carried out on family income and expenditure, the data have not yet been processed or published in such a form as to be made full use of; hence, 1957 figures have been taken since the distribution structure does not seem to have altered much since then.

Table 16 speaks for itself: while 30 per cent of the lowest-income families earned 7.5 per cent of the total personal income and 60 per cent earned 21 per cent, 10 per cent in the top bracket absorbed 46.7 per cent.

The poverty and want affecting broad population sectors, on the one hand, and the disease, malnutrition and ignorance prevailing among families, on the other, act as a brake on development, a challenge to planners and a spur to vigorous action by politicians in relation to economic and social planning.

/(b) Demographic

(b) Demographic pressure and the irresponsible attitude to procreation

In Mexico, as in other Latin American countries, the poverty existing in rural, as well as urban, sectors explains the high proportion of illegitimate children and the irresponsible attitude of parents - particularly the male - to reproduction. There are large numbers of unmarried mothers and deserted wives who have to support their children out of their own miserable wages.

Although here too, there are no figures available, they are hardly necessary if consideration is given to the effects of the shifts of unskilled rural workers who are congesting the cities, have no proper housing or employment and are swelling the numbers of under-employed.

In the face of this demographic pressure there are signs of a growing awareness in the cities of the drawbacks to prolific reproduction at the various social levels of Mexico's population. The following conclusions may be drawn from the data gathered in the course of certain research on fertility and birth control in Mexico City.

Women of the low-income sectors with four, five or more children are not opposed to birth control and would be willing to practice it if they had simple measures at their disposal. There is a distinct correlation between living levels (education, nutrition, health, housing, etc.) and birth control attitudes and practices. According to a survey of Mexico City,11/ in the Colonia Morelos (a settlement of workers with an average of four years' primary schooling) contraceptives were hardly used. Of the women interviewed, 81 per cent knew nothing about their use and of the 19 per cent who did know about them, 74 per cent did not practice birth control. Another area (Colonia del Valle) enjoying medium and high-income levels recorded widespread use of contraceptive measures, to the extent that only 5 per cent practiced no birth control, while 19 per cent supplied no information. This situation is closely related to the settlement's high levels of education, nutrition and housing, and to its opportunities for advancement.

Because of its illicit nature, it is difficult to ascertain the actual figures for induced abortion, but certain recent evidence indicates that the practice is to be found in some of the Latin American countries, particularly Chile. In Mexico there is scarcely any research on this serious public health problem. Attention might be drawn to the study by Dr. Arturo Aldama based on a survey of 1,000 women in Mexico City, selected at random over a period of five months, nearly all married or partners in free unions, most of them Catholics, aged between 15 and 44 years, and

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11/ Research carried out by the pilot group of the course on demography and demographic policy, in the 1965 curriculum of the National School of Economics.

belonging to different economic sectors: 30.7 per cent said they had recourse to this practice. The proportion varied slightly according to their level of education, but predominated among women aged 35 to 44 years and those who had more than four children. The main reasons given were financial difficulties, conjugal discord and health problems, in that order. The Juárez Hospital estimates that an intentional abortion takes place for every five live births.

According to statistics furnished by the Mexican Social Security Institute, of the cases attended by Maternity Ward Nº 1 in 1961, 57 per cent were confinements, 30 per cent abortions (including threatened abortions) and 13 per cent other diagnoses. These proportions amounted to 62 per cent, 26 per cent and 12 per cent, respectively, of the total number of women insured. This is a fairly high ratio, since it is equal to 42 abortions for every hundred live births, but it cannot be considered reliable and merits serious research, since it is not known whether these cases were induced or spontaneous (possibly brought about by working conditions), and how many took place or were averted. However, the statistics appear to confirm the results obtained by Dr. Aldama, i.e., that this illegal practice is being used far more extensively than is currently admitted, in Mexico City and perhaps in other Mexican cities as well. The Fourth Regional Conference of the Industrial Federation of Family Planning in the Western Hemisphere, held at Puerto Rico from 19 to 27 April 1964, stated that "the studies presented to the Conference bring to light that in all countries of the region the serious problem of illegal abortion entails considerable loss of life among women of childbearing age, destruction of the family and a heavy government outlay in alleviating the ill effects of abortion." In Mexico City there are a number of private centres which provide advice on family planning.

The Mexican Social Security Institute has 97 social security centres for family welfare spread throughout Mexico, which hold courses on family hygiene designed to regulate family growth, but there is no established birth control policy.

It is therefore necessary to adopt a demographic policy aimed at enhancing the responsibility, dignity and love with which the act of procreating the human race ought to be surrounded. In a modern democratic community, family planning on ethical bases is a possibility that should be accessible to all concerned, through proper hygiene guidance at public health centres. Family planning, through the preventive control of fecundity, would no doubt reduce the figures for illegal abortions and enable children to enjoy a higher level of well-being within the family circle.

(c) The poverty and isolation of the indigenous groups

The children belonging to underprivileged minority groups cannot be neglected. These groups include the indigenous population which still uses its own language. In spite of the fact that its material and cultural conditions are primitive and more often in keeping with pre-Colombian communities than with present-day Mexican society, this ethnic group does not at the moment represent an insurmountable problem from the economic and social standpoint.

The indigenous population can be defined in terms of its characteristic cultural features (customs, technology, level of living and language). One of the simplest means of classification, though not the only one, is the spoken language. There were 1.1 million inhabitants over 5 years of age who spoke only indigenous languages in 1960 and 1.9 million (mestizos) who spoke Spanish as well as one or more indigenous languages, and both groups are becoming proportionately smaller (see table 17).

There are 57 ethnic groups in the whole of Mexico, of which about 23 had only a few hundred members in 1960. The remaining 34 groups each had over 1,500 members, and of these only 11 had more than 20,000.12/

Mexico's policy in respect of its indigenous population has been concerned mainly with incorporating the indigenous inhabitants in modern Mexico's culture and economy although the results have not been as satisfactory or as rapid as originally expected.

In practice, the indigenous population does not present the problem of an ethnic and cultural minority whose singular characteristics give rise to social difficulties when it comes to absorption or incorporation in the national community, and which moreover obstructs the economic and social change, as tends to happen in other countries.

12/ Chinanteco (north of Oaxaca), 23,000; Tlapaneco (south-east of Guerrero), 24,000; Chole (Chiapas Central Plateau), 33,000; Mixe (Sierra Madre de Oaxaca), 35,000; Tzotzil (Chiapas Central Plateau), 57,000; Otomi (Guanajuato, Guerrero, Hidalgo, Michoacán, San Luis Potosí, the Distrito Federal, Mexico State, Puebla, Morelos and Tlazcala), 58,000; Totonaco (north of the Sierra de Puebla and part bordering on the coastal plain of Veracruz), 64,000; Mazteco (Sierra de Oaxaca and Veracruz plain), 73,000; Zapoteco (centre and south-east of State of Oaxaca), 79,000; Maya (Yucatán, Campeche and Quintana Roo), 81,000; Mexicano or Nahuatl (Distrito Federal and Morelos and Mexico States), 297,000.

/However, specialists

However, specialists have gained the impression that Mexico's indigenous population policy has been somewhat fragmentary, inasmuch as each indigenous group has been treated separately like a laboratory sample and there has been no co-ordination in the over-all provisions, and particularly between local development programmes envisaging the incorporation of indigenous communities in the economy of the different areas whose development is being planned.

The social welfare policy as applying to the indigenous population has been paternalistic in character, taking the form of gifts and grants in money and in kind which can contribute little or nothing to the advancement of the indigenous group.

It is felt that a health, nutrition and education policy should be co-ordinated with regional development plans and supplemented by community development programmes, which could serve as instruments for the implementation of programmes at the national level. Whatever the nature of the service afforded to the indigenous community, it must be borne in mind that it helps to create the physical and mental qualities required by the members of unfavoured minority groups if they are to become integrated in, and contribute effectively to, their country's economic and social development process.

3. The expansion of social security and a nation-wide health nutrition and hygiene education programme

The best way to safeguard a community's health is through social security schemes which also protect the family from many other contingencies. If Mexico's social security service continued to expand as rapidly as in the past six years, by 1970 it will cover 23 million inhabitants, i.e., 45 per cent of the whole population, as compared with 8.6 million - or 21 per cent of the whole population - in 1964.

Incomplete data were available on the cost of the social security service, but it was estimated on the basis of the average income for each insured person obtained by the Mexican Social Security Institute and projected in line with the prevailing trend, multiplied by the total number of insured persons. Thus it was calculated that the cost of the social security service represented 2.2 per cent of the gross national product in 1964 (5,000 million pesos) and would absorb 3.9 per cent in 1970 (see table 18). The persons covered by social security are primarily employed in industry and a very small number in agriculture, while the railways, petroleum and mining companies, Federal institutions and banks have their own social security schemes for their employees. Schemes will have to be worked out in the immediate future to cover, on different bases if necessary, agricultural workers - wage-earners and farmer-owners -, personnel employed in services, professionals, etc. Even so, a proportion of the population will still be ineligible for inclusion in these schemes.

The Ministry of Health and Welfare looks after families not covered by social security which lack the means to resort to private medical services. If the Ministry continues its action in this direction, the number of out-patients attended - which has risen very slowly - will probably decrease, while maternal and child care - which has grown exceptionally fast - may expand (see table 19). The Ministry's Annual Report indicates that 2 million persons in the rural area received medical care in 1963 by virtue of agreements with rural organizations, and this number dropped to 1.7 million as a result of the inclusion of sugar-cane producers and agricultural workers from the Sinaloa area in the social security system.13/

However, if it is assumed that the Ministry will protect children by providing maternal and child care, intensifying its hygiene education campaigns, spreading information about family planning, dietetic practices and preventive medicine and improving its services, and that its budget will continue to absorb the average proportion of the gross national product recorded in the last six years (0,40), expenditure in 1970 will probably be 1,507 million pesos.

Health and nutrition conditions will improve noticeably if the Government undertakes a nutrition programme at the national level along the following lines:

1) The provision of low-cost foods, particularly protein-rich items.

Mexico has surpluses of maize, wheat, beans and sugar, which have been sold at low prices and purchased at support prices; 1.7 million tons of grain were purchased in 1962. It still remains to increase the production of milk, meat, chickens, fish, eggs and certain fruits and edible oils; 10,800 tons of milk were purchased and 9,000 tons of powdered milk were sold.

2) The production of foods that are in short supply, specially meat, milk and eggs; According to INN calculations, the production of meat and milk should be doubled by 1970, and that of eggs should be tripled.

3) The provision of school breakfasts to the children of all non-private schools who would like to have them.

School breakfasts could have three objectives: (1) they should be educational, or at least lay the bases for the various aspects of nutrition education programmes; (2) they should solve the problem of lack of food during the children's long absence from home, aggravated by the inadequate

13/ Ministry of Health and Welfare, Memoria 1958-1964, pp. 72-73.

/care they

care they often receive; and (3) they should improve the children's state of nutrition with a view to improving their general health and efficiency at school, which would have the effect of raising their cultural and nutritional levels.14/

Quite apart from the technical side, school breakfast programmes are generally successful because the children are all gathered together on the school premises and the programme is always supported both by the parents - since it relieves them of responsibility - and by the community as a whole. School breakfasts are provided in nearly all countries, and in some they are virtually compulsory.

"In countries like Japan which are trying to accomplish the educational, family and nutritional objectives at once, it is a fairly complex programme because of its essentially local character. The school, assisted by the Government and the community, is basically responsible for the programme, although it always receives technical assistance from nutritionists who, in the main, are specially assigned to the programme.

"The chief aim in the Distrito Federal and in certain cities is to raise the nutritional levels of children, for which purpose nearly a million highly nutrition rations are prepared at the industrial level, consisting of reconstituted milk, canned meat, enriched biscuits or bread, etc., which are packed in cartons and distributed by the schools. The teachers select the children they consider most in need of them on the basis of undernutrition and other factors, and they are consumed during recreation. It is good-quality food containing enough nourishment to satisfy nearly half the child's daily requirements.

"Unfortunately, it is not a very educational system, as the menus and food are monotonous, the school-teachers take little part in it and there is no staff to conduct supplementary educational programmes.

"Even as a programme aimed at solving the problem of malnutrition in school-children it has its limits, since it is a well-known fact that malnutrition hardly affects this age group and the most undernourished children do not even attend school (and live in rural areas rather than the cities), besides which other action is needed to prevent or treat undernutrition.

"There is no doubt that the best way of administering school feeding programmes as such, rather than as welfare programmes, is (a) broaden their scope so as to encompass the three objectives mentioned above; (b) to improve their techniques with a view to their proper organization and management; (c) to enlist the effective participation of the school, the parent's association and the community; and (d) to provide nutrition education for the children."15/

14/ Dr. Adolfo Chávez, Manual de administración de programas de nutrición, National Nutrition Institute, México, 1964, p. 98 and passim.

15/ Ibid.

/On the

On the basis of the criterion that school breakfast should form part of Mexico's education and nutrition programmes, the expenditure thereon was included in education costs, and nutrition costs were calculated only for children aged 0 to 5 years in needy families, arbitrarily estimated at 25 per cent of the uninsured population. Thus, 1.8 million food rations would be distributed daily in 1965 and somewhat fewer - 1.5 million - in 1970, since the extension of the social security coverage would reduce this welfare service. The programme would cost 654 million pesos in 1970, or 0.2 per cent of the gross national product.

No figures are available for the cost of medical care services in the various States, but they are not considered to be very high. To sum up, if 4.5 per cent of its gross national product is earmarked to meet public health and social security needs, Mexico would be in a position to accomplish important social development targets within a very short span. This aim calls for a Federal Government contribution of only about 1.6 per cent of the gross national product (1 per cent from the social security service, 0.4 per cent from the Ministry of Health and Welfare and 0.2 per cent from the nutrition programme), the rest being forthcoming from the contributions of insured persons and employers.

V. CHILDREN'S EDUCATION, THE ENJOYMENT OF RECREATION AND ENTERTAINMENT, AND VOCATIONAL TRAINING

1. Use of human resources in education and work

If consideration is given to the use of the whole population in activities which train it to benefit from and contribute to economic development, it will be seen that education and work are the activities best calculated to further those aims. Children's education should begin from the age of 4 or 5 years in kindergartens and pre-primary schools. However, owing to the poverty and population pressures existing in the Latin American countries, this type of education, despite its advantages, is considered a luxury. In Mexico, the number of children attending these institutions has clearly increased at an accelerated pace. In 1930 kindergartens were attended by 1.7 per cent of the total number of children in this age group, while in 1960 the proportion had risen to 9.6 per cent (see table 20). However, 90 per cent of the children do not receive this type of education and this fact is undoubtedly reflected in the low levels attained in first grade at primary school, since the children have not even learnt to hold a pencil.

A growing proportion of children in the following age group - 6 to 14 years - attend school (58 per cent in 1960, as against 38 per cent in 1930), while the proportion of children working at this early age has dropped from 14 per cent in 1930 to 7 per cent in 1960 (the absolute figures have not changed). Nevertheless, 36 per cent of the children in this age group (3 million) neither worked nor attended school in 1960. Attention should be drawn to the number of young students in the 15-24 age group; the remainder work, and those who do not are in the main housewives, since the unemployment figures - as has been noted - are very low. The post-primary school students represented 2.7 per cent of this age group in 1930 and 7.4 per cent in 1960; the growth rate was 12.1 per cent annually, i.e., higher than in any other group, and this clearly brings out the need for increasing intermediate education services.

In the older age groups, the proportion not working is mainly represented, as in the preceding group, by women who are not fully incorporated in the labour force.

Thus, table 20 highlights the need to turn children and young people to better account by increasing the coverage of elementary education, as required in all the Latin American countries, and expanding post-primary education, particularly at the secondary level, by lengthening the school attendance of children and young persons and thereby alleviating the pressure exerted by sources of employment on the unskilled or semi-skilled population.

/2. Nationwide

2. Nationwide elementary education: major problems and obstacles

In spite of Mexico's persistent efforts at all government levels to provide elementary education, if not to the whole population, at least to the rising generations, it has proved impossible to solve the increasingly serious educational problem since its efforts have been offset by the rapid population growth. Thus, although in relative terms the total number of school-age children - 6 to 14 years - who are not attending primary school has been considerably reduced, in absolute terms it has only decreased slightly. Although the total number of children enrolled in primary schools rose by 85.7 per cent between 1950 and 1960, and the number of children receiving no primary education dropped from 52.7 per cent in 1950 to 33.6 per cent in 1960 and 22.6 per cent in 1964, and that the enrolment in 1964 was 33.7 per cent higher than in 1960 and 148.3 per cent above the 1950 level, the decline in the number of children not attending primary school was only from 3.3 million in 1950 to 2.2 million in 1964 (see table 21).

Moreover, in spite of the substantial increase in total school enrolment figures and the relative reduction in the number of children receiving no education, it is still a complex problem since a very small number of children actually complete their primary education - which should be the minimum requirement -, as can be seen in table 22.

This means that in 1964 not only did 22.6 per cent of the children lack any kind of schooling, but of those who did attend school only slightly less than a quarter completed their primary studies; furthermore, dropping out is far more frequent in the first few years, as can be seen in table 23.

In other words, out of the total number of children enrolled in the first grade in 1963 - the year that shows the most favourable ratio - over one-third either failed to enrol in, or failed to complete, the following course. The problem is even more serious if in addition to the total number of children without schooling account is taken of those who drop out, during the first year of primary education with the barest elementary knowledge that will soon be forgotten.16/ Among the most important reasons for dropping out a distinction should be drawn between those which do and those which do not relate to the child's willingness to attend school and his family's financial situation.17/

16/ Children repeating the year are not included for want of the necessary data.

17/ See Fundamento Estadístico del Plan de Once Años de Educación Primaria, pág. 21.

The second group includes the following:

(a) no school or teacher available;

(b) non-existence of the grade the child should attend;

(c) the nearest school at a considerable distance and no means of transport available;

(d) the child's inability to speak Spanish and understand the teacher.

Such cases (which altogether represent over 40 per cent of the school-age children who do not attend school) cannot be described as dropping out; on the contrary, they clearly reflect the State's inability to meet the population's educational needs.

In fact, 40.5 per cent of the children who failed to attend school in 1959 were prevented from doing so for want of a school, a teacher or a grade, as illustrated by the following figures:18/

1) There are at present 88,151 villages and hamlets in Mexico with fewer than 2,500 inhabitants, and there were only 18,653 rural schools in 1965; thus, 69,498 of these places have no educational facilities at all.19/

2) Of the 18,653 rural schools, 59.1 per cent - or 11,024 - are one-teacher schools, and this obviously prevents school-age children from pursuing their elementary education.

3) In 25 per cent of these schools the teacher looks after more than 67 pupils, and 395 teachers are in charge of over 100 pupils each - sometimes over 200 -, so that the attention received by each child is utterly inadequate.

While it is true that the above figures apply only to the rural population, the position in the cities, although not quite so bad, is far from satisfactory. Thus, in the Distrito Federal - the only sector for which data are available - 18.3 per cent of the population aged 6 to 9 years, or 111,287 children, do not attend school, 20/and 17.9 per cent

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18/ Ibid.

19/ See the 1960 Census. This figure would have to be adjusted in that certain places which are politically separate actually from one population centre, a fact which considerably reduces the number.

20/ See Sampling Department, Ministry of Industry and Trade, Mexico, Investigación demográfica, económica y social en el Distrito Federal, August 1964, pp. 9 and 11, tables 2 and 3.

of the 7-9 age group is illiterate; adult illiteracy is even more widespread, 55.6 per cent of the population aged over 35 years being unable to read. In absolute figures and excluding children under 7 years, there are 407,519 illiterate persons in the Distrito Federal and over 10 million in the whole of Mexico.

The pupil/teacher ratio has not altered much (see table 24) and, since it is under 50, it cannot be considered unfavourable. A far more serious problem is the distribution of teachers and school-children over the whole country, which reflects such disparities as 35 and 36 children for every teacher in north and south Baja California, and 53 and 51 children for every teacher in Michoacán, Nayarit and Tabasco.

Clearly, the above ratio is merely an indication of the problem, since it is more than likely that the pupil/teacher ratio varies considerably according to whether the children are in first or sixth grade.

Far more serious is the fact that in 1964 there were 70 school-age children for every teacher in Mexico. Another point which cannot be disregarded is the varying levels of enrolment among school-age children in different parts of Mexico. The proportion of school-age population not attending school in 1960 ranged from the relatively low figure of 22.1 per cent in such States as Baja California and Morelos to 64.3 per cent in the State of Chiapas which, together with the following States, lacked educational facilities for half the school-age population: Guanajuato, 57.1 per cent; Guerrero, 52.1 per cent; Jalisco, 53 per cent; Michoacán 53.4 per cent; Oaxaca, 56.2 per cent; Querétaro, 55.4 per cent; and Zacatecas, 54.3 per cent.

Primary education projections

Before recommending solutions to Mexico's primary education problem and estimating the costs entailed, it will be necessary to project the school-age population with a view to determining the resources that will be needed to meet the requirements of the whole of that sector of the population. The projections presented in this study are based on the assumptions set out below:

1. The following procedure was adopted in estimating the school-age population:

(a) The birth rate, which fluctuated from 44.7 per mil in 1960 to 44 per mil in 1960, was applied to the whole population, and this gave the total number of live births each year.

(b) On the assumption that all children aged 6 years should be starting school, the number of live births six years previously was adjusted in accordance with the child mortality rates for the 0-5 years age group, ranging from 114.9 per mil in 1960 to 84.3 per mil in 1970. On this basis it was possible to calculate the number of children who ought to be enrolled in first, second and other primary grades for any one year.

2. One of the measures for placing primary education on a nationwide basis would be to make school attendance compulsory for the school-age population, and failure to comply with this obligation after a reasonable period would be sanctioned by the State (by penalizing the local authorities, the parents or persons responsible). This is the only way for the educational system to function properly.21/

There are two possibilities for accomplishing this:

Hypothesis A or the normal possibility. All children aged 6 years in 1966 would be enrolled in the first grade and the 1965 registration would be taken as a basis for those who should enrol in second, third and other grades. Since there are still anomalous circumstances in the 1965 enrolment, the wastage coefficients for the population enrolled in the past were maintained, i.e., 22.7 per cent for first grade, 17 per cent for second grade, 18 per cent for third grade, 17 per cent for fourth grade, 16 per cent for fifth grade and 7 per cent for sixth grade.

Hypothesis B. This possibility envisages the provision of education for the whole population aged 6 to 14 years who are not yet enrolled; they would leave school at 14 whatever grade they had reached (if they remained at school an adult education problem would be created). In other words, this hypothesis aims at absorbing the existing backlog and making the whole of the school-age population attend school.

From 1971 onwards the two hypotheses would come into line with one another since the existing deficit would have been controlled. In these circumstances, despite the population growth, the school-age population would be considerably reduced in 1971. This is explained by the fact that only the children aged 6 to 11 years and those failing to complete their primary studies in six years were considered. In order that primary education can function properly - which it would do from 1971 onwards - priority must be given to enrolling 6-year-old children in first grade, and only once the whole population of that age had been enrolled would the remainder also be enrolled in first grade.

3. In order to determine the total number of children to be educated by the State, private school-children were excluded, their number projected on the basis of the 1958-64 trend observed in the enrolment of children in other than State schools (see table 25).

21/ The Organic Education Law provides for these sanctions.

4. An estimated 10 per cent of the State school-children enrolled in first grade, 9 per cent of those enrolled in second and third grade, 7 per cent of those enrolled in fourth and fifth grade and 5 per cent of those enrolled in sixth grade would repeat the year.22/

5. Lastly, it was decided that each group should consist of 50 pupils.

Primary education costs have been divided into three broad groups:

(a) Educational costs proper;

(b) Expenditure on welfare services for the school-age population; and

(c) Expenditure entailed by the scattering of the population throughout the country.

A. Educational costs proper can be broken down into two major groups: current expenditure and capital expenditure. The former covers the salaries of teaching staff (teachers, directors, inspectors, etc.), payments in respect of services (janitors, service personnel, electricity, water supply, etc.) and purchases of educational material and free text books, i.e., the total expenditure incurred yearly. Capital expenditure includes the construction and furnishing of classrooms.

Current expenditures. This can be calculated by dividing the school-age population into groups of fifty pupils and assigning to each group a teacher, a given quantity of school materials, the necessary services, etc.; but the system is very difficult to put into practice because of the different categories of teachers and schools, other differences in respect of porters, gardens and buses, and the fact that some are one-teacher schools and some have technical directors (with no particular group under their care), inspectors, visiting officials, technical advisers, specially commissioned teachers, etc.

In view of the impracticable nature of the above method, an indirect system was adopted: the Federal Government's total current expenditure on primary education was added to that of the State governments. The cost per pupil was obtained by dividing this sum by the total number of school-children. It followed a clearly rising trend in 1958-63 which was projected up to 1975. Thus, the cost of a child's education would rise from 287.46 pesos in 1966 to 355.32 pesos in 1975, representing the total current expenditure except for the cost of the free text-book.

22/ The coefficients for children who fail to pass on to the next grade are at present much higher; but this is due, at least in part, to the existence of one-teacher schools and groups of too large a size in the first few grades of rural and urban schools, both of which circumstances will presumably disappear. The coefficients used are nevertheless higher than those registered in private schools in the Distrito Federal. No adjustment was made for the population prevented, for any reason, from attending school.

/In order

In order to standardize primary education, a free text-book is distributed among the whole of the school-age population independently of whether they attend public or private school. The text-book or text-books vary in quantity, quality and, therefore, in cost, according to the school grade. Unfortunately, it was impossible to ascertain the cost of the books for each grade and an indirect system was adopted here, too. School-children are given books and exercise-books, of which 32 million were distributed in 1964 among 6,530,751 pupils; in other words, each pupil on an average received 4.9 books or exercise-books, at an average cost of 1.90 pesos, i.e. a total cost of 9.40 pesos per child.23/ Accordingly, current expenditure on public school children would amount to 296.86 pesos in 1966 and 364.72 in 1975, as against 9.40 pesos on private school children.24/

Capital expenditure. Can be determined directly. The average cost of a classroom is 37,000 pesos; 25 double desks - for fifty pupils - cost 1,750 pesos; a desk and chair for the teacher, 1,357 pesos; and a blackboard, 145 pesos.25/ However, the capital costs set out below include only the expenditure entailed by the increase in the school-age population, without counting the cost of upkeep, repair or rebuilding of classrooms, desks, etc. The reason is that there are no statistics showing the present situation with respect to schools and furniture, although part of the school-age population is known to attend school in inadequate and ill-furnished buildings, some of which are rented; hence the costs will no doubt be higher when the present situation regarding classrooms and furniture is known. (see table 26).

B. Expenditure on welfare services for the school-age population covers only school breakfasts, at a cost per head of 1.17 pesos; this was increased by 4 per cent annually in order to bring it into line with possible rises in the price index (see table 27). It should be pointed out that the above figure does not include the price of milk since so far this has been provided free. The cost per pupil/day was multiplied by 200 - i.e., the number of working days in school calendars A and B - in order to arrive at the annual cost per pupil, and this was multiplied by the total number of State school children.26/

23/ See Suplemento Estadístico a la Memoria, "Obra educativa en el sexenio 1958-64".

24/ No particular trend is noted in the unit cost of books. See "Obra Educativa en el Sexenio 1958-64", pág. 64.

25/ Data furnished by the Educational Statistics Department, Ministry of Public Education. The bookshelf is not included, as it need not be designed until the time comes to build the classroom.

26/ School breakfasts will probably be supplied in the near future only in those areas where there is most undernutrition and dropping out for financial reasons.

C. As regards expenditure entailed by the scattering of the population, the projections are based on the assumption that there will be fifty children in each grade; in other words, that even in the smallest hamlet a primary school could be established with groups of fifty pupils. This is not so in practice, however, since there are 51,555 population centres with fewer than 100 inhabitants and an average of only 30. In 1960, there were 84,809 localities in Mexico with fewer than 1,000 inhabitants and a combined population of 12.2 million, that is, an average of 144 inhabitants in each.27/ It is impossible to provide complete primary education for these villages and hamlets, since to establish the six grades in each would require 508,854 teachers. Two alternatives remain: the one-teacher school with all its drawbacks, or the possibility of gathering the school-age population of several such places at strategic points where complete primary schools could be established with the normal number of pupils in each grade.

On the basis of the foregoing considerations it was deemed that the school could be attended by the school-age population living within a radius of ten kilometres, provided there were buses to collect the children at certain times and places and take them there. In order to ascertain whether these possibilities were feasible, a sample was taken of three States with a high percentage of illiteracy and widely scattered populations in such different geographical areas as Veracruz, Querétaro and Guerrero.

The sample yielded the following results:

(a) in Veracruz, each circle with a ten-kilometre radius would include 31 places with a combined population of 10,783 inhabitants;

(b) in Querétaro, it would include 29 places with 10,189 inhabitants; and

(c) in Guerrero, 27 places with 8,358 inhabitants.

It is easy to see that the places and populations do not differ greatly in number. To generalize, therefore, the following averages would apply to Mexico as a whole: 29 places with 9,777 inhabitants for every educational centre, that is, sufficient to provide a complete education for groups of normal size.

A total of 2,900 schools of this type would be needed, for which only the following costs were earmarked: under the head of current expenditure, apart from educational costs proper, an average of 600 pesos

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27/ See 1960 Census, pág. 59, table 5.

a month to cover a chauffeur's wages; and under capital costs, apart from the construction and furnishing of schools, 50,000 pesos to purchase a bus; this cost seems low, but the depreciation was calculated over three years at an annual cost of 16,667 pesos.28/ Other ministries also have their own transport, in particular the Ministries of Health and Defense, and it might even be possible to pool all these vehicles.

The cost of road-building has not been envisaged because it might vary considerably and in many cases the communities benefiting from the arrangement would be expected to keep the road in good repair. Nor has the cost of petrol and lubricants been estimated because a small fee might be charged to cover it or it might be borne by the municipal authorities or, failing that, the State authorities.29/

Thus the criteria are established for determining the cost of providing elementary education for all children not covered by existing programme.

From the estimated figures for the two hypotheses it is obvious that hypothesis B would be far more costly because of the backlog that would have to be absorbed in the first year of the programme (1966). On the other hand, from 1971 onwards the capital costs would disappear in both alternatives, owing to the reduction in the school-age population, as there would then be a normal educational pyramid, and to the reduction in the number of school-children once the unusual cases had been eliminated (see tables 28 and 29).

The resources required for the two hypotheses are substantial in relation to present disbursements, but if they are compared with the gross national product, whose growth is expected to be 6 per cent in real terms while that of the price index would be 3 per cent, hypothesis A - which is the most feasible - would require a decreasing proportion of the gross national product, estimated at 2 per cent in 1966 and 1.3 per cent in 1975.

This does not seem an impossible proposition either for the State or the Mexican economy. An average of 85 per cent of these costs would be absorbed by the Federal Government and the rest by the various State governments.

28/ In some States there are small hamlets more than 10 kilometres away from any other population centre. Their educational problems would not be solved, therefore, but their population amounts to only about 1 per cent of the total.

29/ Children from very poor families could be given a card exempting them from any payment, including for school breakfasts.

3. Secondary education and vocational training

Secondary education is the basis which enables most of the school-age population to acquire a trade or specialty in order to turn its efforts to account. In the more developed countries compulsory schooling lasts nine or ten years. Elementary education cannot really be expected to train a child for work and, therefore, as a long-term target, it would be as well to consider that the whole population destined to form part of the labour force should enjoy the benefits of secondary education according to its ability and aims. Of this group, only a well chosen minority would go on to higher education. The type of secondary, agricultural, normal, industrial, commercial, nursing, services and other education would depend on the structure of the demand for manpower.

This target cannot be accomplished over the short term, however, particularly in wiew of the tremendous efforts that are necessary to provide elementary education. In principle, therefore, secondary education would be confined to all school-children requesting it. The type of post-primary education offered - training in special skills; normal, technical, basic or specialized training; or preparation in order to pass into the higher cycles - would be adjusted to the projected employment structure. In Mexico, attendance at secondary schools has increased by 13.4 per cent annually, although it should be noted that many young people requesting enrolment fail to gain admittance. In the future, any person requesting secondary education should receive it, even if not necessarily of the type he wants, since he should be guided according to the needs of the Plan. Two possibilities were considered, the first based on the increase noted in the past, and the second based on the relationship observed between those completing sixth grade (hypothesis A) and continuing their post-primary education as shown in table 30.

To take the lower alternative, there would be 1.3 million pupils attending secondary school in 1970 and 2.4 million in 1975. On the arbitrary assumption that 40 per cent of those who complete secondary school go on to advanced secondary or sub-professional education, there would be nearly 200,000 students at this level in 1970. The projections in respect of professional training were based on an increase of 5.4 per cent (which is higher than the increase in the 15-24 age group), inasmuch as stress must be placed at this level on quality rather than on numbers. On this assumption there would be 160,000 students at the higher educational level in 1970. These estimates are represented in the pyramid shown in figure 5.

The projections and structure of higher education should be in line with the employment structure projected in the even more distant future, according to the demand for manpower by levels of training and activities. Table 31 shows the projected changes in the composition of the labour force in 1970 and 1975, and table 32 presents Mexico's employment structure by activities and levels for 1960 and projections for 1970.

/To bring

To bring the future employment structure into line with the existing educational pyramid would require a complete and detailed analysis which would be out of place here, partly because it does not respond to the needs of the population aged 0-14 years which is the subject of the present study.

On the assumption that in 1970 secondary education will cost 2,000 pesos per pupil and higher education 3,500 pesos per pupil, the total cost of secondary education for that year would be 2,631 million pesos, that of advanced secondary and sub-professional education would be 387 million and that of higher education 560 million, which, combined with the cost of elementary education (hypothesis A) would amount to 10,900 million pesos. Moreover, if it is assumed that extra-curricular and pre-school cultural activities would require 20 per cent of that sum, the total expenditure in 1970 would be 13,000 million pesos, or 3.5 per cent of the gross national product, a proportion which is in line with the estimates of several experts in the case of other countries and is within the limits of the Mexican economy. This sum would, of course, have to be obtained from various sources, e.g., the Federal Government, the local governments, and private institution concerned with education.

To sum up, the funds required to meet the public health needs of the whole population, the social security needs of 40 per cent of the population, the nutrition needs of all school-children wishing to receive food rations, and educational needs according to the country's requirements will absorb 8 per cent of the gross national product in 1970, a burden which will be divided between the Federal Government, the local governments, the social security service - the contributions are really taxes levied on the employer - and the private sector.

/Table 1

Table 1

MEXICO: POPULATION GROWTH, 1803-1975

Year	Number of inhabitants	Growth rate (percentage)
1803	5 764 731	-
1810	6 122 354	0.9
1820	6 204 000	0.2
1830	7 996 000	2.6
1842	7 016 300	-1.0
1852	7 661 919	0.9
1862	8 396 524	1.0
1872	8 655 553	0.4
1882	10 001 884	1.5
1892	11 872 137	1.8
1900	13 607 259	1.8
1910	15 160 369	1.1
1921	14 334 780	-0.5
1930	16 552 722	1.7
1940	19 653 552	1.8
1950	25 791 017	2.8
1960	36 003 000	3.1
1965	42 808 600	3.6
1970	51 086 200	3.6
1975	60 891 700	3.6

Source: 1803-1950, Statistical Department, Ministry of Industry and Trade, Anuario Estadístico de los Estados Unidos Mexicanos, 1962-1963, Mexico, 1965. The figures for 1960, 1970 and 1975 were taken from computations and projections prepared by the Colegio de México.

/Table 2

Table 2

MEXICO: BIRTH, OVER-ALL MORTALITY, CHILD MORTALITY AND NATURAL GROWTH RATES, BY QUINQUENNIA, 1920-75

Year	Number of inhabitants (thousands) (1)	Number of births (per thousand) (2)	Number of deaths (per thousand) (3)	Child mortality (4)	Natural growth (2)-(3) (5)
1920 a/	14 334.8	31.4	25.3	223.1	6.1
1925	15 203.8	33.1	26.5	215.9	6.6
1930	16 552.7	43.8	26.6	131.6	17.2
1935	18 089.5	42.3	22.6	125.7	19.7
1940	19 653.6	44.3	23.2	125.7	21.1
1945	22 233.2	44.9	19.5	107.9	25.4
1950	25 791.0	45.5	16.2	96.2	29.3
1955	29 679.4	46.4	13.5	83.3	32.9
1960	36 003.0	44.7	11.2	74.2	33.5
1965	42 808.6	44.4	10.5 b/	67.0 b/	33.9
1970	51 086.1	44.0	10.1	52.1	33.9
1975	60 891.7	43.6	10.1	43.6	33.5

Source: Statistical Department, Ministry of Industry and Trade, Anuarios Estadísticos de los Estados Unidos Mexicanos, and Colegio de Mexico.

Note: The birth and child mortality rates for 1970-75 were calculated on the basis of an annual growth rate of 3.4 per cent for births and of -0.2 per cent for deaths recorded in 1953-63. The mortality rate projections for 1970-75 were based on a conservative hypothesis, i.e., the rate for 1963 obtained from data furnished by the Colegio de Mexico which was expected to remain at about the same level during the period considered.

a/ Figures for 1922, except the population figures which is for 1921.

b/ 1963 figures (Statistical Department).

/Table 3

Table 3

MEXICO: TOTAL POPULATION BY PRINCIPAL AGE GROUPS, 1930-75

(Thousands of inhabitants)

Age groups	1930	1940	1950	1960	1965	1970	1975	Growth rate in 1960-70 (percentage)
Total	16 553	19 654	25 791	36 003	42 808	51 086	60 892	3.6
0- 4 years	2 511	2 865	3 970	6 719	8 047	9 567	11 182	3.6
5-14 years	3 979	5 231	6 784	9 662	11 822	14 325	17 193	4.1
15-19 years	1 685	1 996	2 632	3 534	4 285	5 267	6 440	4.1
20-64 years	7 886	8 970	11 491	14 853	17 211	20 183	23 991	3.2
65 years and over	492	591	913	1 235	1 444	1 745	2 085	3.6
15-64	9 571	10 966	14 124	18 388	21 496	25 450	30 431	3.4
0-14 and 65 years and over	6 982	8 687	11 667	17 616	21 312	25 636	30 461	3.9

Source: Statistical Department, Ministry of Industry and Trade, Population Censuses; and Colegio de México.

/Table 4

Table 4

MEXICO: DEPENDENCY COEFFICIENT, 1930-75

Age groups	1930	1940	1950	1960	1965	1970	1975
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
0- 4 years	15.2	14.6	15.4	18.7	18.8	18.8	18.4
5-14 years	24.0	26.6	26.3	26.8	27.6	28.0	28.2
15-19 years	10.2	10.2	10.2	9.8	10.0	10.3	10.6
20-64 years	47.6	45.6	44.6	41.3	40.2	39.5	39.4
65 years and over	3.0	3.0	3.5	3.4	3.4	3.4	3.4
15-64 years	57.8	55.8	54.8	51.1	50.2	49.8	50.0
0-14 and 65 years and over	42.2	44.2	45.2	48.9	49.8	50.2	50.0

Source: As for table 3.

/Table 5

Table 5

MEXICO: ESTIMATES OF SCATTERED POPULATION, 1960

(Thousands of inhabitants)

	Total population	Percentage of total	Population centres			
			Densely populated	Percentage of total	Low population density	Percentage of total
Total	36 003	100.0	18 250	50.7	17 753	49.3
Less:						
Urban population	18 254	50.7	10 588	29.4	7 666	21.3
Population of small villages or hamlets (1 000-2 500)	4 996	13.9	2 497	6.9	2 499	6.9
Population of places with fewer than 1 000 inhabitants	12 753	35.4	5 165	14.3	7 588	21.1

/Table 6

Table 6

MEXICO: ECONOMICALLY ACTIVE POPULATION, 1960

	Thousands of inhabitants	Percentage	As a percentage of the total population
Total population	36 003		
Economically active population	11 332	100.0	31.5
Unpaid help	121	1.1	
Children aged 8 to 11 years	79	0.7	
Children aged 12 to 14 years	484	4.3	
Inhabitants aged 65 years and over	742	6.5	
Paid inhabitants belonging to the productive age group	9 907	87.4	27.5

/Table 10

Table 7

MEXICO: THE FEMALE WORKER'S ROLE IN THE LABOUR FORCE, 1900-75

Year	Total population (1)	Labour force (2)	(2) as a percentage of (1) (3)	Number of males (4)	Number of females (5)	(5) as a percentage of (2) (6)
1900	13 607	4 819	35.4	4 128	443	9.2
1910	15 160	5 272	34.8	4 588	614	11.6
1921	14 335	4 884	34.1	4 554	329	6.7
1930	16 553	5 166	31.2	4 926	240	4.6
1940	19 654	5 858	29.8	5 426	432	7.4
1950	25 791	8 272	32.1	7 145	1 127	13.6
1960	36 003	11 332	31.5	9 297	2 035	18.0
1965	42 809	13 678	32.0	10 674	3 004	22.0
1970	51 086	16 687	32.7	12 253	4 434	26.6
1975	60 892	20 614	33.9	14 068	6 546	31.7
Annual growth rate 1940-60	3.1	3.4		2.8	8.1	
Projected annual growth rate 1965-75	3.6	4.2		2.8	8.1	

Source: As for table 3.

/Table 8

Table 8

THE FEMALE WORKER'S ROLE IN ECONOMIC ACTIVITIES, AND BIRTH RATES IN SELECTED COUNTRIES

(Millions of inhabitants and percentages)

Country	Year	Total population (1)	Economically active population (2)	(2) as a percentage of (1) (3)	Number of males (4)	(4) as a percentage of (2) (5)	Number of females (6)	(6) as a percentage of (2) (7)	Birth rate a/ (8)
Mexico	1960	36 003	11 332	30.9	9 296	82.0	2 035	18.0	46.0
Ecuador	1960	4 515	1 484	32.9	1 219	82.2	265	17.8	47.6b/
Venezuela	1961	7 524	2 407	32.0	1 957	81.3	449	18.7	44.4
Peru	1961	9 747	3 034	31.1	2 370	78.1	664	21.9	33.9
Average for group 1						80.9		19.1	
Switzerland	1960	5 429	2 512	46.3	1 756	69.9	756	30.1	18.1
Federal Republic of Germany	1961	53 977	25 763	47.7	16 301	63.3	9 462	36.7	18.3
Sweden	1960	7 495	3 244	43.3	2 278	70.2	966	29.8	13.9
Japan	1960	93 347	44 009	47.1	26 822	60.9	17 187	39.1	17.2
United States	1960	179 323	69 877	39.0	47 468	67.9	22 410	32.1	23.7
Israel	1961	2 179	752	34.5	556	73.9	197	26.1	25.4
Canada	1961	18 201	6 497	35.7	4 719	72.6	1 778	27.4	26.0
Average for group 2						68.4		31.6	
India	1961	439 235	188 676	43.0	129 171	68.5	59 505	31.5	...
Egypt (United Arab Republic)	1960	25 841	7 769	30.0	7 155	92.0	614	8.0	42.7
Average for group 3						80.3		19.8	

Source: ILO, Year Book of Labour Statistics; United Nations, Statistical Yearbook, 1963; Statistical Department, Ministry of Industry and Trade, Eighth Population Census, 1960; Colegio de México.

a/ Per thousand.

b/ 1959.

/Table 9

Table 9

MEXICO: ECONOMICALLY ACTIVE POPULATION WITH MINIMUM-PRODUCTIVITY EMPLOYMENT, 1960

(Thousands of workers and percentages)

Activities	Total economically active population	Minimum-productivity employment a/		Other employment	
		Employed persons	Percentage	Employed persons	Percentage
Total	11 332	4 511	39.8	6 821	60.2
Agriculture	6 144	2 293	37.3	3 851	62.7
Industry	2 147	1 146	53.4	1 001	46.6
Services	1 527	359	23.5	1 168	76.5
Other employment b/	1 514	713	47.1	801	52.9

Source: Statistical Department, Ministry of Industry and Trade, Eighth Population Census, Mexico, 1960.

a/ Monthly incomes under 199 pesos in agriculture, 499 pesos in industry, 199 pesos in services and 499 pesos in other employment.

b/ Including trade, transport and unspecified employment.

/Table 10

Table 10

MEXICO: DEVELOPMENT OF MEDICAL CARE SERVICES, 1945-70

Year	Number of beds a/		Number of beds per thousand inhabitants (in public or semi-public hospitals)	Number of medical practitioners	Doctor/patient ratio	Medical care costs a/			Number of persons undergoing curative treatment			Number of inhabitants cared for by the Mexican Social Security Institute (INSS)		
	In public or semi-public hospitals	In private hospitals				Number of patients in homes and day-care centres	Total (thousands)	Per capita (pesos)	In-patients	Out-patients	Cost (millions of pesos)	Total	Insured persons	Hospital, maternity and surgery services
									Thousands					
1945	...	...	-	...	...	2 905b/	3 712b/	1 278	256b/	5 727b/	88.5b/	534	207	11
1950	...	...	-	...	...	4 589	6 491	1 414	307	6 783	151.1	974	373	46
1955	...	...	-	...	...	4 911	6 655	1 355	530	8 546	242.1	1 550	585	90
1958	33 050	12 794	-	...	...	3 736	8 521	2 281	472	7 832	329.7	2 514	900	134
1960	39 782	...	1.1	21 321	1 689	3 702	12 341	3 334	634	7 788	427.0	3 340	1 181	221
1961	43 629	...	1.2	22 274	1 674	3 618	14 149	3 911	674	8 458	440.9	3 990	1 347	248
1962	47 863	...	1.2	24 419	1 582	3 776	14 681	3 388	704	8 724	452.7	4 694	1 519	310
1963	52 507	...	1.4	25 420	1 575	3 713	16 125	4 343	779	8 968	490.3	5 233	1 651	368
1964	57 541	...	1.4	26 971	1 538	3 709	17 606	4 747	861	9 220	531.0	6 307	1 864	453
1965	63 122	...	1.5	28 615	1 496	3 709	19 242	5 188	952	9 478	575.0	7 631	2 104	557
1970 c/	100 282	...	2.0	38 476	1 328	3 709	30 021	8 094	1 576	10 841	856.7	19 794	3 860	1 567
Average annual growth rate, 1958-64 (percentage)	9.7			6.1d/					10.6e/	2.8e/	8.3e/	16.6	12.9f/	23.0f/

Source: Biostatistical Department, Ministry of Health and Welfare; Economic Survey Department, INSS; Statistical Department, ISSSTE; Statistical Department, Ministry of Industry and Trade, Statistical Yearbooks.

Note: To the 21 321 medical practitioners in 1960 were added those graduating in 1961, 1962 and 1963 in order to estimate the figures for those years. As regards hospital beds, the only figures available were 33 050 in 1958 and 57 541 in 1964. The growth rate was calculated to be 3.9 per cent and the figures for the intervening years were estimated on that basis. The projections for 1965 and 1970 were based on the growth rates for the periods indicated.

a/ The figure for hospital beds in 1964 relates only to INSS, ISSSTE and the Ministry of Health and Welfare.

b/ 1964 figure.

c/ Projections based on the average for 1960-63 and on the growth rate of the unit cost in 1960-63.

d/ 1960-63.

e/ 1958-62.

f/ 1958-63.

/Table 11

Table 11

MEXICO: OBSTETRICIAN/TOTAL POPULATION RATIO, BY HOSPITAL, 1960

Hospital	Number of inhabitants	Number of medical practitioners	Doctor/patient ratio
1. Aguascalientes	255.7	100	2 557
2. Baja California norte	535.7	516	1 038
3. Baja California sur	82.4	35	2 354
4. Campeche	176.5	84	2 101
5. Coahuila	951.7	627	1 518
6. Colima	169.9	63	2 697
7. Chiapas	1 218.7	312	3 906
8. Chihuahua	1 245.7	622	2 003
9. Distrito Federal	5 010.9	8 410	596
10. Durango	787.2	227	3 468
11. Guanajuato	1 786.8	527	3 391
12. Guerrero	1 241.7	302	4 112
13. Hidalgo	1 030.1	264	3 902
14. Jalisco	2 512.4	1 330	1 889
15. Estado de México	1 937.4	394	4 917
16. Michoacán	1 938.9	531	3 651
17. Morelos	402.9	235	1 714
18. Nayarit	410.6	124	3 311
19. Nueva León	1 118.7	1 135	986
20. Oaxaca	1 763.9	250	7 056
21. Puebla	2 021.8	784	2 579
22. Querétaro	70.6	74	5 008
23. Quintana Roo	50.4	6	8 400
24. San Luis de Potosí	1 098.4	379	2 898
25. Sinaloa	866.9	466	1 860
26. Sonora	822.4	532	1 546
27. Tabasco	508.4	139	3 658
28. Tamaulipas	1 060.0	815	1 301
29. Tlaxcala	360.2	77	4 678
30. Veracruz	2 761.3	1 308	2 111
31. Yucatán	646.3	506	1 277
32. Zacatecas	858.5	147	5 840
Total	36 003.0	21 321	1 689

Source: Biostatistical Department, Ministry of Health and Welfare, and Colegio de México.

/Table 12

Table 12

MEXICO: OVER-ALL MORTALITY CAUSED BY DISEASES ATTRIBUTABLE TO POVERTY AND LACK OF HYGIENE IN RELATION TO TOTAL NUMBER OF DEATHS, 1950-62

(Absolute figures)

Cause	1950	1955	1960	1962
Diseases of the digestive system a/	72 386	67 563	60 098	54 411
Diphtheria	538	527	438	362
Whooping-cough	11 888	7 462	4 741	4 738
Measles	7 687	7 716	6 096	5 876
Malaria	22 996	19 639	7 064	933
Other infectious and parasitic diseases	6 695	7 112	6 157	7 756
Anaemia	2 463	3 057	3 282	3 474
Pneumonia	65 751	55 717	49 329	50 954
Bronchitis	9 561	8 465	10 562	11 197
Pre-natal and infancy diseases b/	28 491	45 084	50 183	49 719
Total number of deaths caused by these diseases	228 456	224 342	197 950	189 420
Total number of deaths	413 430	407 522	402 545	403 046

Source: Statistical Department, Ministry of Industry and Trade, Anuarios Estadísticos de los Estados Unidos Mexicanos.

a/ Including gastritis, duodenitis, enteritis and colitis, but excluding diarrhoea affecting new-born infants.

b/ Including pregnancy, delivery and puerperal complications; injuries sustained during delivery; post-natal asphyxia and atelectasis; infections affecting new-born infants; and other unspecified infancy and childhood diseases.

/Table 12-A

Table 12-A

MEXICO: PROPORTION OF OVER-ALL MORTALITY CAUSED BY DISEASES ATTRIBUTABLE TO POVERTY AND LACK OF HYGIENE IN RELATION TO TOTAL, 1950-62

(Percentages)

Cause	1950	1955	1960	1962
Diseases of the digestive system a/	17.5	16.6	15.0	13.5
Diphtheria	0.1	0.1	0.1	0.1
Whooping-cough	2.9	1.8	1.2	1.2
Measles	1.9	2.4	1.5	1.5
Malaria	5.6	4.8	1.7	0.2
Other infectious and parasitic diseases	1.6	1.7	1.5	1.9
Anaemia	0.6	0.8	0.8	0.9
Pneumonia	15.9	13.7	12.3	12.6
Bronchitis	2.3	2.1	2.6	2.8
Pre-natal and infancy diseases b/	6.9	11.1	12.5	12.3
Proportion of deaths caused by these diseases	55.3	55.1	49.2	47.0
Total mortality	100.0	100.0	100.0	100.0

Source: As for table 12.

a/ Including gastritis, duodenitis, enteritis and colitis, but excluding diarrhoea affecting new-born infants.

b/ Including pregnancy, delivery and puerperal complications; injuries sustained during delivery; post-natal asphyxia and atelectasis; infections affecting new-born infants; and other unspecified infancy and childhood diseases.

/Table 13

Table 13

MEXICO: NUMBER OF DEATHS, TOTAL AND BY AGE GROUP, IN RELATION TO TOTAL POPULATION, 1961-63

	1961		1962		1963	
	Absolute figures	Percentage	Absolute figures	Percentage	Absolute figures	Percentage
Total number of inhabitants	37 299.1	100.00	38 642.0	100.00	40 031.7	100.00
Total number of deaths	388 857	1.04	403 046	1.04	402 283	1.01
Number of deaths in the following age groups:						
0-14 years	199 106	0.53	206 466	0.53	208 369	0.52
Under 1 year	115 666	0.31	119 295	0.31	120 360	0.30
1 to 4 years	63 858	0.17	67 340	0.17	67 876	0.17
5 to 9 years	13 587	0.04	13 562	0.04	13 973	0.03
10 to 14 years	5 995	0.01	6 269	0.01	6 160	0.02

Source: Biostatistical Department, Ministry of Health and Welfare; Statistical Department, Ministry of Industry and Trade, Anuarios Estadísticos; and Colegio de México.

/Table 13-A

Table 13-A

MEXICO: PRINCIPAL CAUSES OF INFANT, CHILD AND EARLY ADOLESCENT MORTALITY, 1961-63

(Under one year of age)

	1961		1962		1963	
	Absolute figures	Percentage	Absolute figures	Percentage	Absolute figures	Percentage
Total	115 666	100.0	119 295	100.0	120 360	100.0
All forms of dysentery	786	0.7	726	0.6	723	0.6
Whooping-cough	1 738	1.5	1 432	1.2	1 591	1.3
Measles	977	0.8	1 061	0.9	1 211	1.0
Meningitis (not meningococcus infection)	580	0.5	597	0.5	571	0.5
Bronchial pneumonia and bronchitis	27 441	23.7	28 947	24.3	29 788	24.7
Gastro-enteritis and colitis, excluding diarrhoea affecting new-born infants	24 434	21.1	25 974	21.8	23 130	19.2
Other diseases of the digestive system	445	0.4	697	0.6	820	0.7
Avitaminosis and other deficiency diseases	2	-	4	-	4	-
Anaemia	6	-	-	-	10	-
Infancy and pre-natal diseases	49 493	42.8	49 430	41.4	52 099	43.3
Other diseases	9 764	8.4	10 430	8.7	10 413	8.7

Source: As for table 13.

/Table 13-B

Table 13-B

MEXICO: PRINCIPAL CAUSES OF INFANT, CHILD AND EARLY ADOLESCENT MORTALITY, 1961-63

(1 to 4 years of age)

	1961		1962		1963	
	Absolute figures	Percentage	Absolute figures	Percentage	Absolute figures	Percentage
Total	63 858	100.0	67 340	100.0	67 876	100.0
All forms of dysentery	1 430	2.2	1 368	2.0	1 245	1.8
Whooping-cough	3 211	5.0	1 859	4.3	3 260	4.8
Measles	4 056	6.4	3 937	5.8	5 000	7.4
Meningitis (not meningococcus infection)	510	0.8	576	0.9	537	0.8
Bronchial pneumonia and bronchitis	13 226	20.7	14 088	20.9	14 973	22.1
Gastro-enteritis and colitis, excluding diarrhoea affecting new-born infants	18 797	29.4	19 401	28.8	15 170	22.3
Other diseases of the digestive system	1 572	2.5	1 758	2.6	1 750	2.6
Avitaminosis and other deficiency diseases	2 817	4.4	2 965	4.4	2 645	3.9
Anaemia	676	1.1	762	1.1	772	1.1
Infancy and pre-natal diseases	439	0.7	453	0.7	256	0.4
Other diseases	17 124	26.8	19 173	28.5	22 268	32.8

Source: As for table 13.

/Table 13-C

Table 13-C

MEXICO: PRINCIPAL CAUSES OF INFANT, CHILD AND EARLY ADOLESCENT MORTALITY, 1961-63

(5 to 9 years of age)

	1961		1962		1963	
	Absolute figures	Percentage	Absolute figures	Percentage	Absolute figures	Percentage
Total	13 587	100.0	13 562	100.0	13 973	100.0
All forms of dysentery	330	2.4	275	2.0	276	2.0
Whoooping-cough	381	2.8	332	2.4	357	2.6
Measles	696	6.1	689	5.1	921	6.6
Meningitis (not meningococcus infection)	155	1.1	147	1.1	156	1.1
Bronchial pneumonia and bronchitis	1 735	12.8	1 777	13.1	1 984	14.2
Gastro-enteritis and colitis, excluding diarrhoea affecting new-born infants	2 246	16.5	1 818	13.4	1 351	9.6
Other diseases of the digestive system	527	3.9	606	4.5	529	3.8
Avitaminosis and other deficiency diseases	450	3.3	504	3.7	-	-
Anaemia	356	2.6	363	2.7	430	3.1
Infancy and pre-natal diseases	136	1.0	112	0.8	57	0.4
Other diseases	6 575	48.4	6 939	51.2	7 548	54.0

Source: As for table 13.

/Table 13-D

Table 13-D

MEXICO: PRINCIPAL CAUSES OF INFANT, CHILD AND EARLY ADOLESCENT MORTALITY

(10 to 14 years of age)

	1961		1962		1963	
	Absolute figures	Percentage	Absolute figures	Percentage	Absolute figures	Percentage
Total	5 995	100.0	6 269	100.0	6 160	100.0
All forms of dysentery	101	1.8	86	1.4	84	1.4
Whooping-cough	69	1.2	73	1.2	63	1.0
Measles	146	2.4	132	2.1	179	2.9
Meningitis (not meningococcus infection)	81	1.4	76	1.2	85	1.4
Bronchial pneumonia and bronchitis	546	9.1	576	9.2	628	10.2
Gastro-enteritis and colitis, excluding diarrhoea affecting new-born infants	554	9.2	447	7.1	347	5.6
Other diseases of the digestive system	250	4.2	254	4.0	244	4.0
Avitaminosis and other deficiency diseases	88	1.4	141	2.3	126	2.0
Anaemia	205	3.4	182	2.9	170	2.8
Infancy and pre-natal diseases	44	0.7	45	0.7	27	0.4
Other diseases	3 911	65.2	4 257	67.9	4 207	68.3

Source: As for table 13.

/Table 14

Table 14

MEXICO: DAILY PER CAPITA INCOME AND SUPPLY OF CALORIES AND PROTEIN IN SELECTED COUNTRIES, 1961

Country	1963 per capita income (dollars)	Calories	Animal protein (grammes)	Pre-school child mortality (per thousands)
United States	2 508	3 130	68	1.1
United Kingdom	1 249	3 110	52	1.0
Italy	702	2 620	25	2.6
Mexico	362	2 330	18	16.2
Egypt a/	112	2 650	13	20.4
India b/	72	2 030	6	44.0

Source: FAO, The State of Food and Agriculture, 1961; WHO, The Demographic Year Book, 1961.

a/ 1961 figures.

b/ 1962 figures.

Table 15

MEXICO: PER CAPITA ABSORPTION OF THE PRINCIPAL NUTRIENTS IN RELATION TO RECOMMENDATIONS

Nutrients	Urban areas	Rural areas
Calories	100.7	91.2
Protein	104.2	86.8
Calcium	90.9	86.1
Iron	236.0	168.9
Vitamin A equivalent	72.8	33.0
Thiamine	123.5	157.2
Riboflavin	60.2	39.1
Niacin equivalent	131.3	109.9
Vitamin C	60.0	36.3

Source: Study of five urban settlements and sixteen rural communities. NRO recommendations, adjusted for age, weight and climate.

/Table 16

Table 16

MEXICO: PERSONAL INCOME DISTRIBUTION, 1957

Percentage of total number of families		Percentage of total income	Cumulative income
Total	Cumulative		
10.0	10.0	1.7	1.7
10.0	20.0	2.7	4.4
10.0	30.0	3.1	7.5
10.0	40.0	3.8	11.3
10.0	50.0	4.3	15.6
10.0	60.0	5.6	21.2
10.0	70.0	7.4	28.6
10.0	80.0	10.0	38.6
10.0	90.0	14.7	53.3
5.1	95.1	10.1	63.4
2.6	97.7	12.6	76.0
2.3	100.0	24.0	100.0

Source: Ifigenia M. de Navarrete, La distribución del ingreso y el desarrollo económico de México, National School of Economics (Mexico, 1960), p. 85, table 12.

/Table 17

Table 17

MEXICO: INDIGENOUS POPULATION, 1940-60

(Thousands of inhabitants and percentages)

Group	1940		1950 a/		1960	
	Absolute figures	Percentage	Absolute figures	Percentage	Absolute figures	Percentage
Indigenous population	1 237	6.3	795	3.1	1 105	3.1
Mestizo population	1 254	6.4	1 653	6.4	1 925	5.3
Total population	19 654	100.0	25 791	100.0	36 003	100.0

Source: Instituto Nacional Indigenista.

a/ The disproportion between the 1950 figures and those for 1940 and 1960 leads to the assumption that the 1950 Census must have been very deficient.

/Table 18

Table 18

MEXICO: PROJECTED COST OF EXPANDING SOCIAL SECURITY AND FAMILY AND CHILD HEALTH, NUTRITION AND HYGIENE EDUCATION SERVICES, 1960-70

Year	Total population (thousands of inhabitants)	Gross national product (millions of pesos) a/	Population covered by social security b/				Percentage gross national product	Expenditure on public health, pre-school nutrition and medical care		Pre-school population (0-5 years) 22.1 per cent			Food costs (300 yearly rations)			Total expenditure	
			Thousands of inhabitants	Percentage	Per capita income (pesos)	Total (millions)		Expenditure by Ministry of Health and Welfare (millions of pesos)	Percentage of gross national product	Total (thousands)	Insured	In need of care: 25 per cent not insured	Per capita	Total	Percentage of gross national product	Millions of pesos	Percentage of gross national product
1960	36 003	154 137	4 195	11.7	531	2 655	1.7	625	0.4	7 885	899	745	-	-	-	-	-
1964	41 475	224 600	8 600	20.7	582	5 005	2.2	898	0.4	9 166	1 901	1 200	351	421	0.3	6 324	2.8
1965	42 808	244 814	10 000	23.4	592	5 920	2.4	979	0.4	9 462	2 210	1 813	351	636	0.3	7 535	3.1
1970	51 086	376 676	23 000	45.0	643	14 789	3.9	1 507	0.4	11 227	5 083	1 536	426	654	0.2	16 950	4.5

Source: Based on figures furnished by the IMSS.

a/ The growth in monetary terms was estimated at 9 per cent, the real increase at 6 per cent and the price increase at 3 per cent.

b/ Including employees of petroleum and mining companies, the railways, banks and Federal institutions with their own social security schemes, in respect of which a slower employment growth was assumed, i.e., 6 per cent since the petroleum companies and railways have an over-employment problem; on the other hand, the ISSSTE and credit institutions are in a position to extend their coverage because of the rapid growth of services.

/Table 19

Table 19

MEXICO: FEDERAL EXPENDITURE ON COMMUNITY SERVICES, 1940-63

(Millions of pesos)

Year	Gross national product (1)	Total Federal expenditure (2)	(2) as a percentage of (1)	Total expenditure on social services (3)	(3) as a percentage of (1)	(3) as a percentage of (2)	Educational and sulturel services (4)	(4) as a percentage of (1)	(4) as a percentage of (2)	Welfare and hospital services (5)	(5) as a percentage of (1)	(5) as a percentage of (2)	Welfare and social security services (6)	(6) as a percentage of (1)	(6) as a percentage of (2)
1940	7 300	551.9	7.56	1 130.4	1.79	23.63	74.7	1.02	13.54	39.3	0.54	7.12	16.4	0.22	2.97
1945	20 500	1 320.6	6.44	300.0	1.46	22.72	171.3	0.84	12.97	96.3	0.47	7.29	32.4	0.16	2.45
1950	40 577	2 795.9	6.89	546.7	1.35	19.55	311.3	0.77	11.13	128.5	0.32	4.60	106.9	0.26	3.82
1955	87 349	6 590.5	7.55	1 348.7	1.54	20.47	782.6	0.90	11.88	295.6	0.34	4.49	270.5	0.31	4.10
1958	127 152	9 485.4	7.46	2 264.6	1.78	23.88	1 298.9	1.02	13.69	533.7	0.42	5.63	432.0	0.34	4.55
1959	136 200	9 979.7	7.33	2 582.8	1.90	25.88	1 510.3	1.11	15.13	555.0	0.41	5.56	517.5	0.38	5.19
1960	154 137	11 794.9	7.65	3 302.6	2.14	28.00	1 946.2	1.26	16.50	625.1	0.41	5.30	731.3	0.47	6.20
1961	163 757	13 056.7	7.97	3 732.8	2.28	28.59	2 200.4	1.34	16.85	632.1	0.39	4.84	900.3	0.55	6.90
1962	177 533	14 413.0	8.12	4 322.4	2.43	29.99	2 474.7	1.39	17.17	683.4	0.38	4.74	1 164.3	0.66	8.08
1963	192 200	16 230.0	8.44	5 545.8	2.89	34.17	3 317.4	1.73	20.44	834.2	0.43	5.14	1 394.2	0.73	8.59

Source: Bank of Mexico Reports and Manual de Estadísticas Básicas.

/Table 20

Table 20

MEXICO: DISTRIBUTION OF THE POPULATION, BY USE, 1930-60

(Thousands of inhabitants and percentages)

	1930		1940		1950		1960		Rates of growth		
									1940-30	1950-40	1960-50
Total population	16 553	100.0	19 654	100.0	25 791	100.0	36 003	100.0	1.8	2.8	3.4
Aged 0-3 years	1 999	12.1	2 253	11.5	3 165	12.3	5 498	15.3	1.3	3.5	5.7
Pre-school children aged 4-5 years	1 004a/	100.0	1 155	100.0	1 587	100.0	2 387	100.0	1.5	3.0	4.2
Attending kindergarten	17	1.7	34	2.9	100	6.3	230	9.6	6.9	11.5	8.7
Not attending kindergarten	987	98.3	1 120	97.1	1 487	93.7	2 157	90.4	1.3	2.6	3.8
School-children aged 6-14 years	3 487	100.0	4 688	100.0	6 002	100.0	8 495	100.0	3.0	2.5	3.6
Attending primary school b/	1 300	37.3	1 961	41.8	2 666	44.4	4 913	57.8	4.2	3.2	6.4
Working	494	14.1	504c/	10.8	513	8.6	562	6.7	0.2	0.2	1.0
Neither working nor at school	1 693	48.6	2 223	47.4	2 823	47.0	3 020	35.5	2.8	2.5	0.7
Young persons aged 15-24 years	3 262	100.0	3 544	100.0	4 932	100.0	6 512	100.0	0.9	3.4	2.9
Attending post-primary school	87	2.7	133	3.8	154	3.1	481	7.4	4.3	1.6	12.1
Working	n.d		n.d		2 307	46.8	3 278	50.3	-	9	3.6
Neither working nor at school	n.d		n.d		2 470	50.1	2 753	42.3	-	-	1.1
Adults aged 25-59 years	5 926	100.0	7 003	100.0	8 638	100.0	11 218	100.0	1.7	2.2	1.3
Working	n.d		n.d		4 999d/	57.9	6 278	56.4	-	-	2.4
Not working	n.d		n.d		3 639	42.1	4 940	44.0	-	-	3.2
Old persons aged 60 years and over e/	875	100.0	1 011	100.0	1 467	100.0	1 893	100.0	1.1	3.8	2.6
Working	n.d		n.d		453	30.9	1 214	64.1	-	-	10.4
Not working	n.d		n.d		1 014	69.1	679	35.9	-	-	-

Source: Statistical Department, Ministry of Economic Affairs, 1930, 1940 and 1950 General Population Censuses; Statistical Department, Ministry of Industry and Trade, Eighth General Population Census, Yearbooks and Compendios Estadísticos.

Note: For want of data on the school-age population by age, it was assumed that the 4-5 age group attended kindergarten, the 6-14 age group attended primary school, and the 15-24 age group attended post-primary school.

a/ The Compendio Estadístico 1941 shows 1 013 children in this group at 30 June 1930. The difference of 9 091 with respect to the Fifth Population Census was adjusted.

b/ The figures taken for 1930 and 1940 represented the total number of pupils enrolled; those for 1950-60 represented the total number on completion of the courses.

c/ Average between 494 000 persons working in 1930 and 513 000 in 1950.

d/ Including persons whose age is not indicated.

e/ Including persons aged 64 years.

Table 21

MEXICO: SCHOOL ENROLMENT, 1950-64

	1950	1960	1964
Total number of children aged 6 to 14 years	6 215	8 517	9 887
Children enrolled at end of course	2 630	4 885	6 531
Children completing sixth grade	311	774	1 121
Children receiving no education a/	3 274	2 858	2 235

a/ Including children who have never enrolled and those who dropped out before completing their primary education.

Table 22

MEXICO: SCHOOL ENROLMENT, 1942-64

	Enrolled in first grade (Thousands)	Completed sixth grade (Thousands)	(2) as a percentage of (1)
	(1)	(2)	
1942-47 course	1 076	90	8.4
1952-57 course	1 463	209	14.3
1957-62 course	1 752	343	19.6
1959-64 course	1 763	412	23.4

Table 23

MEXICO: SCHOOL ENROLMENT, 1942-64

(Thousands)

	First grade	Second grade	Dropping out	
			Absolute	Relative
1942 - 1943	1 076	511	565	52.5
1956 - 1957	1 684	422	762	45.2
1960 - 1961	1 886	1 128	758	40.2
1963 - 1964	2 164	1 388	776	35.9

/Table 24

Table 24

MEXICO: PUPIL/TEACHER RATIO, 1958-64

Year	Number of pupils	Number of teachers a/	Pupil/teacher ratio
1958	4 105 302	95 191	43
1959	4 436 561	102 750	43
1960	4 884 988	111 134	44
1961	5 368 247	117 348	46
1962	5 630 324	126 705	44
1963	6 094 850	131 646	46
1964	6 530 751	141 963	46

a/ It should be pointed out that not all teachers have direct contact with the pupils; thus, there are specially commissioned teachers, directors, inspectors, counsellors, etc., who are not directly responsible for groups of pupils.

/Table 25

Table 25

MEXICO: PROJECTED SCHOOL-AGE POPULATION AND ATTENDANCE AT PRIVATE AND STATE INSTITUTIONS, 1966-75

Year	School-age population	Number of private school-children	Number of state school-children
	Hypothesis A		
1966	7 960 598	673 273	7 287 325
1967	9 042 503	716 635	8 325 868
1968	10 075 718	759 997	9 315 721
1969	10 997 971	803 359	10 194 612
1970	11 761 013	846 721	10 914 292
1971	9 896 658	890 083	9 006 575
1972	10 388 634	933 445	9 455 189
1973	10 813 522	976 807	9 836 715
1974	11 251 044	1 020 169	10 230 875
1975	11 683 079	1 063 531	10 619 548
	Hypothesis B		
1966	10 026 257	673 273	9 352 984
1967	11 055 256	716 635	10 338 621
1968	11 990 385	759 997	11 230 388
1969	12 806 907	803 359	12 003 548
1970	13 355 347	846 721	12 508 626
1971	9 896 658	890 083	9 006 575
1972	10 388 634	933 445	9 455 189
1973	10 813 522	976 807	9 836 715
1974	11 251 044	1 020 169	10 230 875
1975	11 683 079	1 063 531	10 619 548

/Table 26

Table 26

MEXICO: PROJECTED EXPENDITURE ON EDUCATION PROPER, 1966-75

(Millions of pesos)

Year	Total expenditure	Current expenditure	Capital expenditure
	Hypothesis A		
1966	3 536.8	2 169.6	1 367.2
1967	3 368.6	2 532.6	836.0
1968	3 710.0	2 913.1	796.9
1969	3 972.1	3 264.5	707.6
1970	4 156.6	3 577.2	579.4
1971	3 021.6	3 021.6	-
1972	3 243.4	3 243.4	-
1973	3 448.4	3 448.4	-
1974	3 663.9	3 663.9	-
1975	3 883.1	3 883.1	-
	Hypothesis B		
1966	5 809.9	2 782.8	3 027.1
1967	3 883.2	2 153.8	729.4
1968	4 170.3	3 510.3	660.0
1969	4 422.0	3 842.5	579.5
1970	4 472.3	4 098.5	373.8
1971	3 021.6	3 021.6	-
1972	3 243.4	3 243.4	-
1973	3 448.4	3 448.4	-
1974	3 663.9	3 663.9	-
1975	3 883.1	3 883.1	-

/Table 27

Table 27

MEXICO: PROJECTED COST OF SCHOOL BREAKFAST, 1966-75

Year	Number of state school-children	Total annual expenditure (millions of pesos)	Cost per pupil (pesos)	
			Daily	Annual
		Hypothesis A		
1966	7 287 325	1 778.1	1.22	244
1967	8 325 868	2 114.8	1.27	254
1968	9 315 721	2 459.4	1.32	264
1969	10 194 612	2 793.3	1.37	274
1970	10 914 292	3 099.7	1.42	284
1971	9 006 575	2 665.9	1.48	296
1972	9 455 189	2 912.2	1.54	308
1973	9 836 715	3 147.7	1.60	320
1974	10 230 875	3 396.7	1.66	332
1975	10 619 548	3 674.4	1.73	346
		Hypothesis B		
1966	9 352 984	2 282.1	1.22	244
1967	10 338 621	2 626.0	1.27	254
1968	11 230 388	2 964.8	1.32	264
1969	12 003 548	3 289.0	1.37	274
1970	12 508 626	3 552.4	1.42	284
1971	9 006 575	2 665.9	1.48	296
1972	9 455 189	2 912.2	1.54	308
1973	9 836 715	3 147.7	1.60	320
1974	10 230 875	3 396.7	1.66	332
1975	10 619 548	3 674.4	1.73	346

/Table 28

Table 28

MEXICO: PROJECTED COST OF PRIMARY EDUCATION, 1966-75

Year	Number of state school-children	Total Cost	Education costs proper	Cost of school breakfast	Transport to schools serving the surrounding district a/
		(Millions of pesos)			
		Hypothesis A			
1966	7 287 325	5 385.9	3 536.8	1 778.1	71.0
1967	8 325 868	5 554.4	3 368.6	2 114.8	71.0
1968	9 315 721	6 240.4	3 710.0	2 459.4	71.0
1969	10 194 292	6 836.4	3 972.1	2 793.3	71.0
1970	10 914 292	7 327.3	4 156.6	3 099.7	71.0
1971	9 006 575	5 758.5	3 021.6	2 665.9	71.0
1972	9 455 189	6 226.6	3 243.4	2 912.2	71.0
1973	9 836 715	6 667.1	3 448.4	3 147.7	71.0
1974	10 230 875	7 131.6	3 663.9	3 396.7	71.0
1975	10 619 548	7 628.5	3 883.1	3 674.4	71.0
		Hypothesis B			
1966	9 352 984	8 163.0	5 809.9	2 282.1	71.0
1967	10 338 621	6 580.2	2 883.2	2 626.0	71.0
1968	11 230 388	7 206.1	4 170.3	2 964.8	71.0
1969	12 003 548	7 782.0	4 422.0	3 289.0	71.0
1970	12 508 626	8 095.7	4 472.3	3 552.4	71.0
1971	9 006 575	5 758.5	3 021.6	2 665.9	71.0
1972	9 445 189	6 226.6	3 243.4	2 912.2	71.0
1973	9 836 715	6 667.1	3 448.4	3 147.7	71.0
1974	10 230 875	7 131.6	3 663.9	3 396.7	71.0
1975	10 619 548	7 628.5	3 883.1	3 674.4	71.0

a/ Broken down as follows: 22.6 million pesos annually for chauffers' wages, and 145 million to cover cost of 2,900 buses at 50,000 pesos each, payable over three years, i.e., an annual cost of 48.3 million pesos.

/Table 29

Table 29

MEXICO: PROPORTION OF GROSS NATIONAL PRODUCT WHICH SHOULD BE EARMARKED FOR PRIMARY EDUCATION, 1966-75

(Millions of pesos)

Year	Gross national product a/	Hypothesis A		Hypothesis B	
		Necessary expenditure on primary education	(2) as a percentage of (1)	Necessary expenditure on primary education	(4) as a percentage of (1)
	(1)	(2)	(3)	(4)	(5)
1966	266 847	5 385.9	2.0	8 163.0	3.1
1967	290 863	5 554.4	1.9	6 580.2	2.3
1968	317 040	6 240.4	2.0	7 206.1	2.3
1969	345 574	6 836.4	2.0	7 782.0	2.3
1970	376 676	7 327.3	1.9	8 095.7	2.1
1971	410 577	5 758.5	1.4	5 758.5	1.4
1972	447 529	6 226.6	1.4	6 226.6	1.4
1973	487 807	6 667.1	1.4	6 667.1	1.4
1974	531 710	7 131.6	1.3	7 131.6	1.3
1975	579 564	7 628.5	1.3	7 628.5	1.3

a/ These projections are based on 1964 figures, multiplied by 109 per cent of the increase, a real growth of 6 per cent and a price increase of 3 per cent.

/Table 30

Table 30

MEXICO: PROJECTIONS IN RELATION TO SECONDARY, ADVANCED SECONDARY, SUB-PROFESSIONAL AND HIGHER EDUCATION, 1965-75

Year	Secondary education (percentage increase) a/	Primary education (constant percentage) b/	Advanced secondary and sub-professional education c/	Higher education d/
1959	330 342	330 342	52 568	71 524
1960	379 904	379 904	63 575	78 787
1961	395 341	395 341	71 495	88 202
1962	460 795	460 795	79 466	100 519
1963	521 088	521 088	95 504	110 378
1964	617 598	617 598	105 490	116 628
1965	700 541	699 983	118 753	122 926
1966	794 624	814 902	132 016	129 564
1967	901 342	919 804	147 882	136 560
1968	1 022 392	1 098 549	150 396	143 934
1969	1 159 699	1 342 582	170 596	151 706
1970	1 315 447	1 715 438	193 508	159 898
1971	1 492 112	2 253 679	219 496	168 532
1972	1 692 250	2 768 446	248 974	177 633
1973	1 919 519	3 151 894	282 389	187 225
1974	2 177 310	3 315 287	320 292	197 335
1975	2 469 728	3 415 510	363 307	207 991

Note: 1959-64 real data, SEP and UNAM.

a/ Average growth rate noted in 1958-64: 13.3 per cent.

b/ On the assumption that 66.86 per cent of the total number of pupils leaving primary school enrol in secondary school (average noted in 1959-64).

c/ On the assumption that 40 per cent of the children completing secondary school enrol in this type of educational establishment.

d/ Annual increase of 5.4 per cent, which is equal to the population growth rate for the relevant age group.

/Table 31

Table 31

MEXICO: EMPLOYMENT STRUCTURE, 1900-75

(Thousands of workers)

	Employed population	Agriculture	Industry	Services	Not adequately specified	Percentage of employed population: Agriculture	Industry	Services	Not adequately specified
1900	4 545	3 157	486	558	247	69.5	10.7	12.3	5.4
1910	5 002	3 597	565	664	90	71.9	11.3	13.3	1.8
1921	4 641	3 490	575	546	2	75.2	12.4	11.8	-
1930	5 352	3 626	692	774	209	67.7	12.9	14.5	3.9
1940	6 055	3 831	836	1 117	164	63.3	13.8	18.4	2.7
1950	8 272	4 824	1 222	1 774	355	58.3	14.8	21.4	4.3
1960	11 332	6 144	2 147	2 959	82	54.2	18.9	26.1	0.7
1965	13 678	6 918	2 839	3 921	-	50.6	20.8	28.6	-
1970	16 687	7 343	3 924	5 420	-	44.0	23.5	32.5	-
1975	20 614	7 566	5 480	7 568	-	36.7	26.6	36.7	-
Rate of annual growth									
1940-60	3.4	2.4	4.9	5.0					
1960-65	3.4	2.4	6.8	6.8					
1965-70	4.1	1.2	6.7	6.7					
1970-75	4.4	0.6	6.9	6.9					

Source: Statistical Department, Ministry of Industry and Trade, Population Censuses; and Colegio de México.

/Table 32

Table 32

MEXICO: EMPLOYMENT STRUCTURE AND PROJECTIONS, BY CATEGORY, 1960 AND 1970

(Thousands of workers and percentages)

	Economically active population	Unskilled workers	Semi-skilled workers	Skilled workers	Total percentage	As a percentage of each group		
						Unskilled workers	Semi-skilled workers	Skilled workers
			1960					
Total	11 332	8 506	2 605	221	100.0	75.0	23.0	2.0
Agriculture	6 144	5 826	285	33	54.2	94.8	4.6	0.6
Industry	2 147	1 558	534	55	18.9	72.6	24.9	2.5
Services a/	3 041	1 122	1 786	133	26.8	36.2	54.4	4.4
			1970					
Total	16 687	10 588	5 209	890	100.0	63.5	31.2	8.2
Agriculture	7 343	6 608	585	150	44.0	90.0	8.0	2.0
Industry	2 924	2 353	1 371	200	23.5	60.0	35.0	5.0
Services	5 420	1 627	3 253	540	32.5	30.0	60.0	10.0

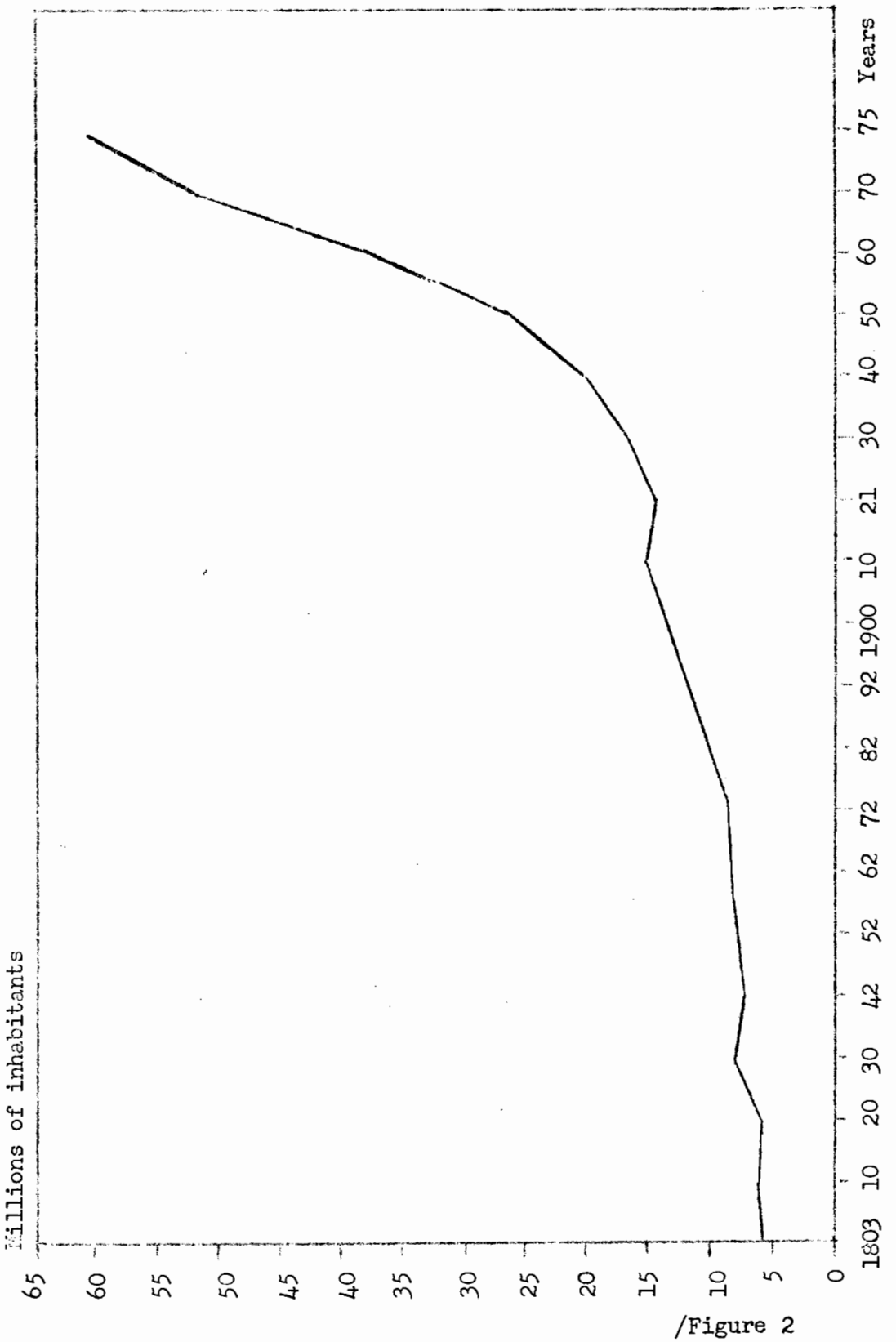
Source: Statistical Department, Ministry of Industry and Trade, Eighth Population census, 1960.

a/ Include unskilled workers.

/Figure 1

Figure 1

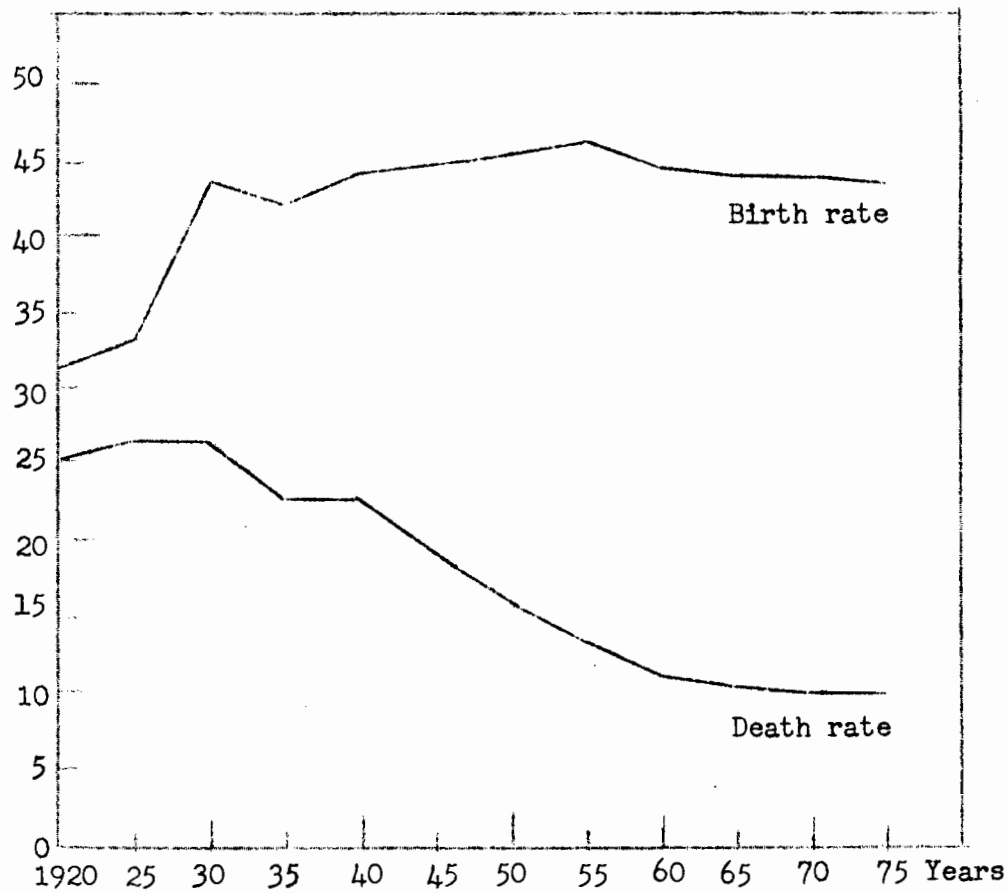
MEXICO : POPULATION GROWTH, 1803-1975



/Figure 2

Figure 2

NATURAL POPULATION GROWTH

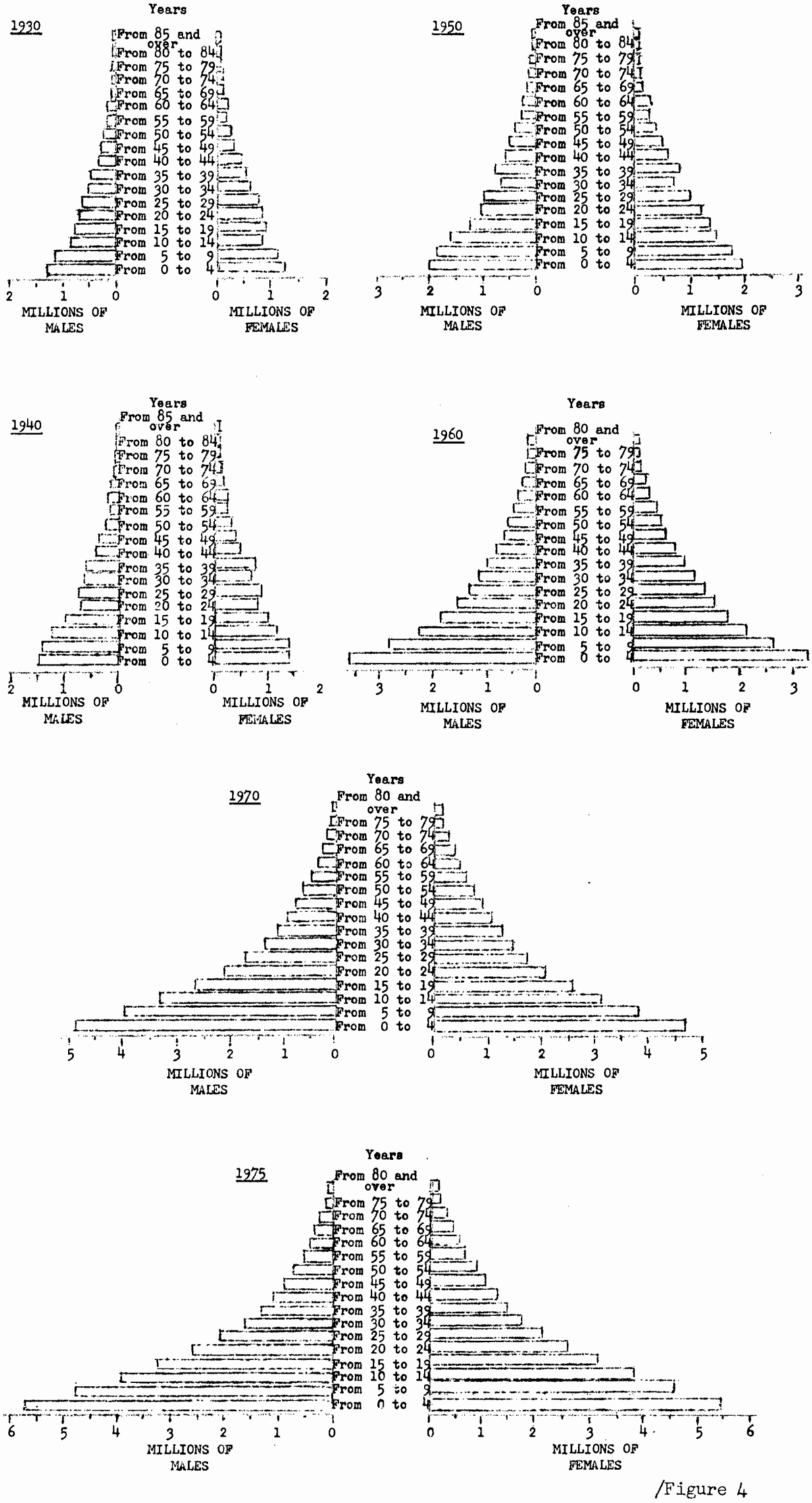


/Figure 3

Figure 3

MEXICO

POPULATION AGE PYRAMIDS

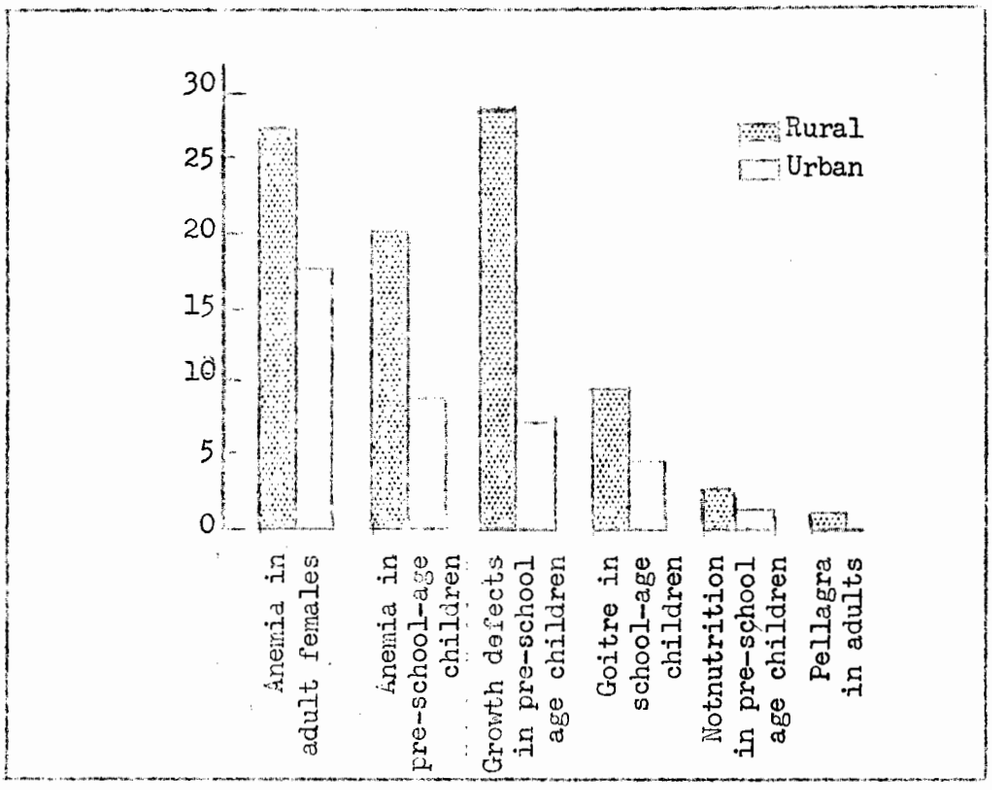


/Figure 4

Figure 4

FREQUENCY OF NUTRITIONAL DEFICIENCIES
IN RURAL AND URBAN AREAS

(Percentages)

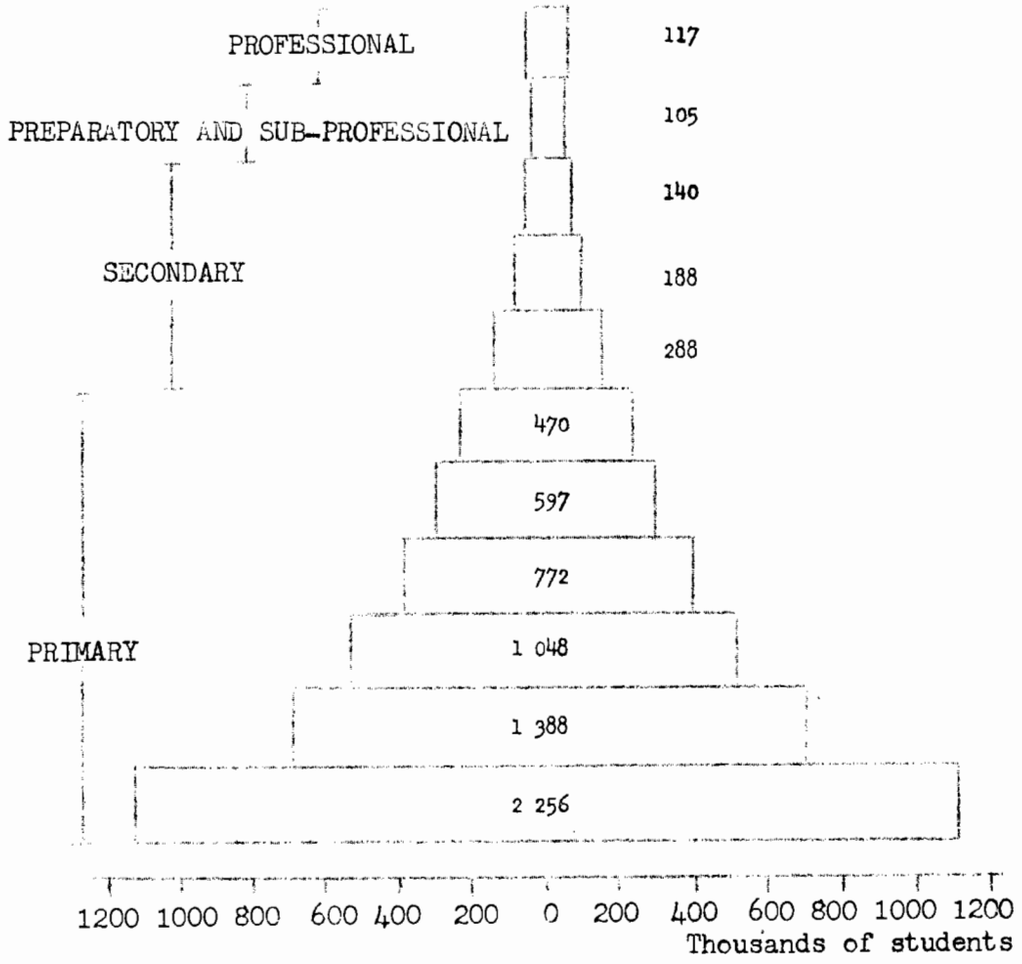


Source : Dr. Salvador Zubirán, El Problema de la Nutrición en México, (México, 1964), pág. 18

/Figure 5

Figure 5

MEXICO : PRESENT EDUCATION PYRAMID
1964



PROJECTED EDUCATION PYRAMID
1970