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POPULATION TRENDS IN LATIN AMERICA IN RELATION TO
ECONOMIC AND SOCIAL POLICY

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I

INTRODUCTION

On past occasions, the Economic Commission for Latin America (ECLA) has expressed an awareness that the facts of population trends and structure may have important repercussions in the field of economics. Now, for the first time, the subject of population trends has been singled out as a matter for the Commission's separate consideration. The bearing which population changes may have on problems of economic and social change has also been recognized in other instances, and in different parts of the world.^{1/} The circumstances in Latin America are special at least in so far as its high rate of population growth is unsurpassed in either the past or the present experience of any major world region.

As recommended by the United Nations Population Commission, two regional seminars dealing with population matters have been held in Latin America, one in 1955^{2/} and the other in 1959,^{3/} to both of which ECLA made certain contributions. Meanwhile, as advised by the Population Commission, certain steps have facilitated the development of regional demographic work programmes in Santiago, Chile.

A demographic unit was detailed to ECLA in 1957, the year when the Latin American Demographic Research and Training Centre (Centro Latinoamericano de Demografía - CELADE), also in Santiago, was being organized. In 1959, the regional Division of Social Affairs, including its demographic staff, was fully incorporated in ECLA. At about the same time, CELADE, initially mainly absorbed in building up its teaching function, came into a position where increasing emphasis could be laid on the side of research and of technical services rendered to Governments.

1/ For instance, at the Fifteenth Session of ECAFE (March 1959, Broadbeach, Australia), the subject of population growth and economic development in the ECAFE region was introduced as a separate item on the agenda (see E/CN.11/506; also, E/CN.11/L.67).

2/ Latin American Seminar on Population (Rio de Janeiro, 5-16 December 1955) (ST/TAA/SER.C/33, New York, 1958).

3/ Seminar on Evaluation and Utilization of Population Census Data in Latin America (Santiago, Chile, 30 November-18 December 1959), (ST/TAO/SER.C/46, New York, 1960).

A close co-ordination, implemented by frequent joint staff meetings, has since been achieved between ECLA's and CELADE's areas of joint endeavour. Thus, a research programme on demographic topics of direct interest to Governments, and also to ECLA, is being progressively developed and planned so as to invest it with cumulative value. At the same time, plans are being actively pursued to assist one or two Governments in the region in establishing technical demographic services within their respective countries.

Thus, the study of population facts as such is now being more systematically undertaken than was hitherto the case in Latin America. There is still, however, a scarcity of studies in which demographic and related economic and social conditions are considered jointly, though steps are already being taken to remedy the situation in that respect also.

ECLA's increased responsibility in the field of population

A review of past accomplishments of the United Nations in the field of population^{4/} leaves no doubt but that ECLA is indebted to the Population Commission for past efforts which have had cumulative results. Without these, the demographic services of ECLA would now be weaker than they are, nor would an international demographic centre like CELADE have come into being.

It is also known that the progress of demographic or any other scientific endeavours is no longer an isolated regional event but depends on simultaneous and parallel developments, in the same field, throughout the world.

As indicated above, the ECLA demographic staff, initially detailed from Headquarters, has now been incorporated in ECLA and is under its direct supervision. The same has occurred with the demographic staff both at the Economic Commission for Africa (ECA) and at the Economic Commission for Asia and the Far East (ECAFE). Implementation of the world-wide demographic programmes, on whose urgency the Population Commission insists, no longer depends exclusively on central initiatives of the United Nations, but increasingly on co-operation with and co-ordination of demographic work at the regional level.

^{4/} See Population Commission, Report of the Eleventh Session (7-17 February 1961) (E/3451 and E/CN.9/165), especially chapter II.

Since the Population Commission urged some enlargement of the scope of world-wide international demographic endeavours, it particularly welcomed the degree of co-ordination achieved between ECLA and CELADE, requested an increase in regional demographic staff, and refrained from requesting increases in the demographic staff at Headquarters.^{5/}

As pointed out by the Population Commission, execution of the proposed "five-year programme of intensified international co-operation in evaluation analysis and utilization of population census data in under-developed countries" - a considerable part of which concerns Latin America directly - is highly dependent on the mobilization of additional technical assistance funds and also of substantial funds from other sources.^{6/}

ECLA's increased responsibility in population matters may have some implications for the internal organization of an integrated substantive work programme, and also for ECLA's relations with the other regional commissions under the Economic and Social Council, and with some of the specialized agencies which have an interest in this particular sphere.

^{5/} Ibid., chapter VIII.

^{6/} Ibid., chapter IV

II

SALIENT FEATURES OF LATIN AMERICAN POPULATION TRENDS

About 5 million inhabitants have been added to the population of Latin America in the current year alone which, in relation to a base population of roughly 200 million, represents a rate of increase of at least 2.5 per cent. At this rate, the population may be doubled within 27 or 28 years. No less important than this high rate of growth are its indirect consequences, through the effects of age structure, changes in economic composition and geographic redistribution. The detailed implications vary with the manner in which this population growth is coming about, and with the accompanying material and social circumstances.

But the situations within which these changes in the numbers and characteristics of the population in the several countries occur are not alike in other respects. The levels of economic and social advancement attained so far vary, and their rate of change, whether spontaneous or induced, further alters the conditions. Natural resources, terms of trade, etc., are not everywhere the same. Each situation is one of numerous variables, interdependent to a varying degree, among which the population factor is one, and whose simultaneous comprehension depends on synoptic study.

A definite assessment of the role of population change, in this combined picture, may have to await further exploration, even though its importance is unmistakable. The present state of advancement of pertinent studies is still circumscribed by limiting circumstances, in particular:

- (a) statistical sources, among which the national censuses taken around 1950 now play the dominant part, will be replenished shortly by a second round of modern and internationally comparable population censuses, for 1960-1961, some of them already taken;
- (b) comprehensive and systematic study of the demography of Latin America is a very recent development, to which the United Nations makes a distinctive contribution; and
- (c) the exploration of the relationships between population trends and particular aspects of economic and social development in Latin America has as yet barely begun.

/The amount

The amount and quality of the Latin American population statistics at present available vary from one country to another. In many cases, the registration of births and deaths is deficient, while in some it is improving. Internal migration is scantily documented and data on international migration are of varying scope. With the use of demographic techniques, the census data can serve as a basis for tolerably realistic estimates of some of those inadequately documented magnitudes. But the censuses taken about 1950 are still, for many countries, the first in which modern standards have been observed, and, for a few, the only ones taken so far.

The demographic estimates referred to, which also appear in this report probably do not stray far from reality in the majority of instances. But they become increasingly unreliable with every year that passes since the date of the latest census. Many of them will shortly have to be revised, and some of them, perhaps, extensively. In numerous instances, new census data obtained in 1960 or 1961 will provide the first opportunity for an accurate re-calculation of intercensal trends.

From the Preliminary survey of the demographic situation in Latin America (E/CN.12/604) only those few salient facts whose bearing on problems under the Commission's purview seems to be most direct have been singled out for the purposes of the present discussion.^{2/}

While hasty generalization must be guarded against - since demographic and related conditions vary among the countries -, a few features emerge as most characteristic of the demographic situation of Latin America as a whole, namely:

- (a) the overall rate of population growth is high;
- (b) the growth of cities is even more rapid;
- (c) children and young persons predominate in the population; and
- (d) for the purposes of economic and social advancement, there are considerable deficiencies in the educational levels and occupational composition of the economically active population.

^{2/} For further information on the points in question see the above-mentioned document E/CN.12/604.

These features are partly inter-related, and their separate discussion can become unduly abstract. They are more accentuated in some areas than in others. And they have detailed implications for a variety of practical problems, such as employment, production, consumption, housing, education, food, transport, markets, public health, and so forth. In the concrete study of any such problem, in respect to a particular country, the impact of population trends and structure can become abundantly clear, especially when detailed population projections are brought together with the corresponding detailed economic assessment. In a report of the present scope, where this subject can only be dealt with in broad outline, the argument cannot be so closely linked with each concrete and significant fact.

1. The influence of a high rate of population growth

The annual rate of population growth, for the whole of Latin America, is now estimated at 2.5, if not 2.6 per cent. The study of the underlying causes indicates that such a rate will most probably be maintained for some time to come. The first results of new censuses, for two countries whose rate of growth exceeds the regional average,^{8/} confirm that this assessment rests on solid reasoning. Constant large additions to the regional population must be regarded as a matter of inescapable fact.

This rate of population growth makes considerable inroads into the increment in per caput regional income. Aggregate income in the region has shown a capacity to grow at a rate of nearly 5 per cent. But as these gains have to be partly redistributed over added numbers of inhabitants, the average annual rise in per caput income is reduced by about one half. The same reasoning applies when the production of particular goods and services is considered. Regional food output, for instance, has lately shown an inclination to grow at a rate averaging 3 per cent;^{9/} but, while the population

^{8/} Provisional results of the 1960 censuses in Mexico and the Dominican Republic, published by the Inter-American Statistical Institute, reveal population totals of 34,626,000 and 3,014,000 respectively. As compared with the census results of 1950, the new data imply an average annual rate of increase of 3.0 per cent in Mexico, and of 3.5 per cent in the Dominican Republic. (The new census figure for the Dominican Republic has not yet been taken into account in the sets of population estimates presented further on in this report).

^{9/} For example, during 1952/53-1958/59, according to FAO, Production Yearbook, 1959.

/itself grows

itself grows at 2.5 per cent, the added food production per inhabitant is very slight. Similarly, deficiencies are to be met with in public health services, housing or education, but the existing gaps are hard to close while population races ahead. For instance, despite progress in the rate of literacy, the absolute number of adult illiterates - some 40 million - is still increasing.

Production increments depend largely, but far from entirely, on the supply of capital. This, in turn, is mainly conditioned by the rate of net savings ("net" implying that allowance has been made for capital depreciation). Some capital, furthermore, must be constantly supplied if only to maintain the existing per caput capital equipment constant, despite population growth. The question arises whether, population growth being what it is, sufficient savings can be made to permit a sustained rise in per caput income at a satisfactory rate. According to certain assumptions whose accuracy has not yet been proved,^{10/} it can be calculated that 6.25 per cent of national income must be saved merely to prevent a decline in per caput income, so long as population grows by 2.5 per cent per year; if savings represent about 12.5 per cent of national income, per caput income may grow by 2.5 per cent annually (doubling in 28 years); if they can be stepped up to 20 per cent, per caput income may grow by 5.15 per cent annually (doubling in 13 years). The assumptions may be incorrect, but the reasoning is valid at this level of abstraction.^{11/}

Another indispensable prerequisite for the advantageous use of capital, and for the ability to effect savings, is the educational preparation of the population for employments corresponding to the assumed levels of productivity. To take up the slack of underemployment alone requires a considerable diversion of capital resources. Even then, the bringing-up of numerous children continues to impair the capacity to effect substantial savings. The amount of savings that can be marshalled while population grows

^{10/} The assumptions and the mode of calculation are explained in document E/CN.12/604, section I,6. In particular, it is assumed that the product-capital ratio equals 2.5, but it is not known whether this ratio can be regarded as typical in the region.

^{11/} Population age structure, income distribution, levels of employment, terms of trade, the state of natural resources, etc., are all determining factors.

at the rate given cannot be directly calculated without taking many detailed circumstances into account.

Thus envisaged, the effects of rapid population growth on rates of economic development are adverse, and all the more so when the population attains such size that available natural resources, in relation to available techniques for their use, threaten to become insufficient. The fear that such conditions may be imminent in certain Asian countries (notably China, India and Japan) is inclining their Governments to embark on policies aimed at curbing the birth rate so that population increases may be slowed down. To a lesser extent, such concern may be warranted where an improvement in techniques is required for the expanded use of limited resources, but population growth is so rapid as to produce a time-lag in the necessary adaptation of techniques. In this sense at least, some areas in Latin America, settled at comparatively high densities, also seem to experience the effects of population pressure.

In other areas, with comparatively low density of settlement and abundant resources, it is rather the lack of population that still hinders economic development. With a larger population, overhead costs, such as those of transport, marketing, etc., can be substantially reduced. It is at least conceivable that, in some areas, a "threshold" of minimal population density is being attained or surpassed, beyond which population growth can become economically stimulating. Whether there are areas in Latin America where the advantages of rapid population growth outweigh its drawbacks is a question that might be answered on the basis of detailed regional study of economic facts in relation to demographic trends and structure.

2. Implications of the trend towards urbanization

While the overall rate of population growth is high, comparatively slower growth in some areas is inevitably compensated by even more rapid increases in others. This is true as regards the individual countries: the annual population increment is smaller than 1 per cent in Uruguay, while it is 3 per cent or more in Central America, the Dominican Republic, Mexico and Venezuela. Among the different parts of each country the divergencies are even greater. Furthermore, while population size and rates of growth may be similar, their significance differs as between Bolivia, inhabited by 3 persons per square /kilometre, and

kilometre, and Haiti, with a density of 129 persons per square kilometre.

Population growth is most strikingly unequal among the urban and rural areas of each country. In Venezuela, for example, the urban population increased from 1941 to 1950 by 80 per cent - at an average rate approaching 7 per cent - while the increase in rural population was nil; consequently, 54 per cent of Venezuela's inhabitants resided in urban areas in 1950, as against 39 per cent in 1941. Provisional 1960 census data confirm that the trend continues.^{12/} The aggregate urban population of Latin America may now be growing at an annual rate of nearly 5 per cent, and that of some countries even faster, while the aggregate rural population may be increasing by 1.5 per cent yearly, if not less.

In addition, Latin American urbanization is characterized by its high concentration in a relatively small number of large centres. In 1950 the urban agglomeration of the capital city alone exceeded one third of the total urban population in at least the following ten republics: Argentina, Chile, Costa Rica, Cuba, the Dominican Republic, Guatemala, Haiti, Panama, Paraguay and Uruguay. Only in Brazil and Colombia did the inhabitants of the capital city number less than one fifth of the country's combined urban population.

Finally, in most Latin American countries, the population in areas that are neither big cities nor rural is comparatively small and is not increasing at conspicuously rapid rates.

These greatly unequal increases as between rural areas, small towns and big cities have visible effects of which a more exact quantitative study remains to be made. Among the effects which strike the eye are the following. Rural resources are often under-utilized in relation to the techniques apparently available. Urban facilities, such as transport, sewerage, hospitals, schools, markets, housing, etc., lag deplorably behind the rapidly increasing needs. Goods and services available in and near the large centres are conspicuously lacking in areas at greater distances from them. In many small towns - although there are noteworthy exceptions - the steps taken to promote their economic growth are patently few. Worst of all, in and around the big cities, a large population is rapidly springing up whose levels of employment

^{12/} Between 1950 and 1960, according to a news release, the population of Caracas doubled once again. So did that of Ciudad Trujillo. In the Federal District of Mexico, outside the administrative bounds of Mexico City, the population numbered 816,000 persons in 1950 and 2,131,000 in 1960

/are characteristically

are characteristically low and whose contribution to the city's economy is disproportionately small.

The magnitude of these visible evils has not been quantitatively assessed, nor is it known to what extent they interfere with the orderly process of development, or how far an enlightened development policy can succeed in reducing them. Objective quantitative studies, considering simultaneously the demographic, economic and social elements of this complex situation, in the special case of Latin America, would have to be systematically carried out. The visible evidence referred to may suffice to class the problem of area imbalances as the population problem of Latin America par excellence. Pending further analysis, however, there is room for at least two points of view.

The area imbalances, where they exist, result if the incentives which induce numbers of the population to move from one type of area to another are out of proportion to the trends and desiderata of economic and social development. Practical policies, aiming at an improved balance, will have to consider the use of special incentives, or deterrents, which influence population shifts, distribution of economic enterprises, social conditions, or all of these factors combined. A knowledge of the effects of each relevant incentive, of their interaction, of the cost of its application, and of the benefits which may eventually result, are then needed so that policy can be sufficiently informed.

Another view of the matter, perhaps, is the following. In the last analysis what is happening essentially is a transfer of under-employment from rural areas, where it has long been latent, to urban areas, where it takes on the most visible form. The slack of under-employment, then, will have to be taken up wherever it is found and however it may become manifest. A high rate of economic growth can facilitate the absorption of under-employment provided that the overall rise in the average level of productivity remains consistent with a wide diffusion of employment at levels of productivity which are at least tolerable.

These two ways of viewing the problem are not necessarily in conflict. Economic growth may well turn out to be most rapid when it is also geographically and socially well balanced. Whether this is the case, or whether there are problems of deciding between the social advantages of geographic dispersal, on the one hand, and more rapid rises in productivity, on the other, cannot be positively stated without prior study of the specific and detailed conditions in the given instances.

3. The economics of age composition

In each of sixteen Latin American countries, children of less than 15 years of age constitute from 42 to 45 per cent of all inhabitants, while persons aged 65 years and over make up only 2 to 4 per cent, leaving between 52 and 56 per cent of the population in the age range from 15 to 64 years, i.e. at ages where they are most likely to be economically capable. For every 100 persons aged 15-64 years, then, there are between 80 and 90 persons in the "dependent" age groups of under 15, or of 65 and over.^{13/}

In these respects, the population structure of sixteen Latin American countries is similar to that of many Asian and African countries where birth rates, hitherto, have always been very high. Population projections show that, in these sixteen countries, significant changes in age composition are not likely to take place very soon.

By contrast, birth rates have declined, to a varying extent, in Chile, Cuba, Argentina and Uruguay. In these four countries, the percentages of children are now 39, 36, 30 and 26; the percentages of aged persons are 4, 4, 5 and 8; persons in the 15-64 year age group, then comprise 57, 60, 65 and 66 per cent of the population, respectively. Here, the population projections predict a possible further shrinkage in the percentage of children which, eventually, will be more than compensated by a rise in the percentage of aged persons. At the present time, the population structure of Argentina is similar to that of the United States, whereas Uruguay more nearly resembles some countries of Western Europe. In Argentina, there are now 55 persons at "dependent" ages per 100 persons aged 15-64.

If all other conditions were equal and average output per worker

^{13/} Actually, not all persons aged 15-64 are economically active, nor are all persons aged under 15, or 65 and over, economically dependent. There are significant variations among countries in age-specific activity rates. The comparison made here merely serves to isolate the specific effects of age composition as such, irrespective of other intervening factors.

/were the

were the same in Argentina and Brazil,^{14/} the Brazilian output, calculated per head of the population, would nevertheless be smaller, for in Brazil there are 181 persons of all ages for every 100 persons of "working age" (15-64), while in Argentina there are only 155. If, in this hypothetical example, Argentina's output per caput were 100, that of Brazil would only be 86, because of age composition. The low per caput outputs calculated for many Latin American countries, in fact, exaggerate the effects of low output per potential worker when a comparison is made with technologically advanced countries in which the proportion of persons of working age is higher. However, this is only one aspect of the effects of age structure.

Argentinian and Brazilian workers, presumably, require comparable amounts of capital equipment if average outputs per worker are to be the same in both instances. Given different age structures, however, the requisite savings cannot be raised so easily in Brazil. If Brazil's comparatively more numerous children are to be as well provided with food, medicine, shelter, clothing and education as those of Argentina, some of the savings potential for capital investment will have to be sacrificed. On the other hand, an equal amount of savings per worker might nevertheless be effected in Brazil, though at the expense of the health and education of some of the children. In both alternatives, the comparative result might ultimately be the same. Healthy and educated workers, provided with less capital, on an average will produce less; so also will workers well equipped with capital but relatively deficient in health and education.

A further untoward effect of relatively numerous children is the claim made on the time, and radius of action, of women. Equal standards of child care are not ordinarily achieved unless more women spend more

^{14/} In this abstract argument, Argentina and Brazil are mentioned solely as an illustration of effects of differences in age composition. The same could be said with reference to any other two populations, say A and B, whose structures are dissimilar. In actual fact, Argentina and Brazil, or any two countries, differ in many other respects as well, all of which help to determine output per worker, rate of savings, education, etc.

/of their

of their time at or, at least, near home. Fewer women can then be fully engaged in economic production, or some women who nevertheless are so engaged are confined to intermittent activity, or a limited range of activities. An appreciable proportion of the adult person years otherwise available then becomes economically unavailable. The alternative - a lowered standard of child care - would eventually produce less efficient workers, as already pointed out. Accordingly, the age composition of most Latin American countries has at least a triple economic disadvantage, as compared with that of countries with lower birth rates, to wit: (1) relatively fewer persons in the population are of working age; (2) among the persons of working age, fewer are economically available; and (3) the capital, health and education per worker which will permit comparable output per worker cannot, ceteris paribus, so easily be secured.

At this level of abstraction, the reasoning is valid. In the concrete conditions of each given instance, of course, various other circumstances intervene. But, to offset the liabilities of an economically inefficient age structure - and these liabilities, it must be pointed out, are cumulative - the compensating factors would have to be of considerable force.^{15/}

The study of age structure is necessary in the analysis of many demographic aspects. Age is a leading factor determining entrance into school, employment or marriage, changes of residence, the begetting of children, retirement from jobs, widowhood, sickness and death. Consumption, income and propensity to save also vary in the life-span of a group of individuals. A population's age composition, and expected changes therein, are an important consideration in respect of various fields within the sphere of economic and social policy or programmes of action; hence the many needs for population projections broken down by sex and age.

^{15/} A partial compensation, in the case of men, occurs in the technologically less developed countries, through their earlier commencement of and less frequent retirement from economic activity (see document E/CN.12/604, section II, 4).

One pivotal age group on which there is a crucial convergence of major economic and social considerations is that of adolescents, or, in other words, persons aged 15-19 years. At about these ages, education usually terminates and economic activity begins. Knowledge or attitudes not then possessed are acquired later in life only with greater difficulty. Around these ages, furthermore, the readiness for changes of residence, type of work, social status, etc., is relatively greatest. Young persons, for instance, particularly women, predominate among the migrants from country to town, with a consequent wide discrepancy in the age composition of urban and rural populations within the same country. An anomaly arises in so far as incomes generated in urban areas are rarely spent on improvement of education in rural areas, even though many of the young urban workers originate precisely from rural localities.

The educational and vocational equipment of the adolescent group in a very large measure determines the future composition of the labour force by occupations and by levels of skill and responsibility. It can be calculated that in a population structured like that of most Latin American countries, only 13 years pass before, from a given date onward, new recruits in the labour force come to constitute the majority of active workers.

Admittedly, the educational burden, in countries of youthful age structure, is heavy. The provision of education meeting the same standards in less youthful countries requires the commitment of almost twice as large a proportion of adults to the teaching profession. However, in view of the rapid and easy modifications in manpower composition that might then be accomplished - if only vocational preparation and guidance became satisfactory - , these same populations possess a precious potential asset in their youth whose proper utilization would seem to warrant considerable expenditure.

4. Manpower characteristics

The economically unfavourable age structure of many countries, already discussed, is partly compensated by the entry of men into economic activity at some of the earliest ages, and by their continued activity

/until very

until very late in life. Thus, 77 per cent of men aged 15-19 years are economically active in Latin America, as against 58 per cent in North America; at ages 65 and over, 70 per cent of Latin American men, but only 39 per cent of North American men, are still economically engaged. Consequently, despite differences in age composition, 57 per cent of all males (including children and old men) are economically active in Latin America, and 58 per cent in North America. If economic activity rates were at the North American level, only about 49 per cent of all Latin American males would be economically active.

The numerical contribution made by early commencement and late cessation of economic life is considerable, but its effect on economic production is rather negative. While the additional very young and old workers are economically not so effective, early commencement of economic activity is consistent only with a curtailment of education, and hence a severe loss of productivity even among the persons at the "best" working ages.

The economic activity of women is particularly slight in Latin America as compared with other regions of the world. In Latin America, only 14 out of 100 females of all ages are economically active, as against 21 in North America and 28 in both Asia and Europe.

Despite the high rate of economic availability of men, unfavourable age structure and the limited economic activity of women reduces the economically active segment of Latin America's total population to 35 per cent. The ratio of inactive to active persons, then, is 1.84. Corresponding ratios for North America, Asia and Europe are 1.52, 1.35 and 1.22, respectively. Conditions in this respect vary widely among the urban and rural areas of each country. The urban age structures are economically more favourable, the urban activity rates of women are much higher and, though urban men have more extended education and retire earlier from jobs, urban dependency ratios are considerably smaller than those registered in rural areas.

The data cited above relate mostly to 1950 censuses. It is probable that, with rapid urbanization, over-all economic activity rates in Latin America have risen, especially through the increased activity of urbanized women. While dependency ratios tend to decline,

/the increase

the increase in the economically active population is faster than that of total population. Job opportunities will have to increase accordingly, unless the increasing numbers of economically available persons are to accumulate in activities where under-employment is widespread.

About 1950, the proportions of the labour force engaged in primary activities (agriculture, forestry, mining, etc.) ranged from 84 per cent in Honduras to 26 per cent in Argentina, 54 per cent the regional average. Urbanization, no doubt, has since then brought the average down to less than one-half. Though agriculture is the most widespread activity and predominates in several countries, Latin America as a whole has now ceased to be a predominantly "agrarian" region.

It does not directly follow that Latin America has become predominantly "industrial". In nearly every Latin American country, almost irrespective of its level of industrialization, the ratio of tertiary workers (in transport, commerce, services, etc.) to secondary workers (manufacturing, building) fluctuates around a figure of 150:100. Even in manufacturing, wage-earning and salaried labour generally constitutes between 50 and 70 per cent of the total labour force, as compared with 95 per cent in the United States. In commerce, the wage-earning and salaried personnel comprises between 20 and 50 per cent of all fully-trained workers in most Latin American countries, as against 80 per cent in the United States. Among Latin American workers engaged in "services", between 10 and 20 per cent are professionals and technicians while, in the United States, the percentage is 30.

The statistics do not bear it out, but a logical process of elimination makes it highly probable that, within some of the tabulated categories, especially in commerce, services and "unspecified" activities, and among the self-employed and those of "other or undertermined" occupational status, relatively large numbers of persons of small skill or negligible resources engage in activities of minimal productivity where under-employment is prevalent.

Some of the most important aspects of the Latin American manpower supply still remain terra incognita, despite the efforts already made to

/study them.

study them.^{16/} The novelty of systematic regional demographic research, and the recency of co-ordination of demographic with economic studies are only part of the cause. Another reason lies in the continued deficiency of pertinent statistics comparable in time, although a fair measure of international comparability was achieved in the 1950 census programme of the Americas.^{17/}

Because of the importance of the matter, it is opportune to consider in what respects the statistics on Latin American manpower are still most incomplete.

First, the most essential characteristics of manpower are education, skill and experience. In accordance with these characteristics, individuals may exercise one of several occupations in which the minimal requirements are similar. The potential uses of manpower are determined in this way, rather than by the occupations currently engaged in. The censuses, in fact, provide ample documentation on levels of educational attainment and, on the other hand, various details based on a grouped list of personal occupations. A standard list of occupations grouped by educational or related prerequisites would be of much potential value as an aid in the tabulation and analysis of census data for the purposes of studying trends and requirements in respect of manpower of varying levels and types of qualification, as well as measures needed to overcome bottlenecks. No international recommendations have yet been made concerning this statistical problem.

Secondly, few census data on levels of employment have so far been obtained. Under-employment varies in degree and circumstances, and a standard definition would be hard to find. But data on numbers of hours worked in a week, or weeks in a year, or on remunerations earned, might

^{16/} E.g. "Changes in employment structure in Latin America, 1945-1955", Economic Bulletin for Latin America, Vol. II, No. 1, February 1957, pp. 15-42.

^{17/} Internationally comparable tabulations of census results on manpower are assembled in: Inter-American Statistical Institute, La Estructura Demográfica de las Naciones Americanas: Análisis estadístico-censal de los resultados obtenidos bajo el Programa del Censo de las Américas de 1950 (COTA 1950), Vol. II, Nos. 1 and 2, (Pan American Union, Washington, D.C., 1959).

be of help in identifying the particular occupations and branches of activity most affected by the phenomenon, quantifying its effects, and studying the policies best-calculated to draw wasted manpower into more effective forms of employment.

Finally, population census data, obtained at intervals of ten years, are too widely spaced for a study of manpower trends. Only to a limited extent is the deficiency covered by occasional economic censuses, such as those of industry, commerce or agriculture, or by surveys, when these are based on economic establishments. The activities of sizable segments of manpower are carried on outside the identifiable establishments. Only in a population census, or in surveys drawn up on a population basis (e.g. repeated household surveys) are the data comprehensive with respect to the total manpower supply. In Latin America, only few surveys of the latter type have so far been organized. The new population censuses might well provide a starting-point, especially when they are organized so as to constitute an efficient sampling frame for future surveys.

III

CONCLUSIONS

From the standpoint of economic and social development, the high rate of population growth must inescapably be taken into account. Any thought of action as regards this rate itself would involve policy questions which are the exclusive prerogative of governments. The findings of the preceding report and of the document to which it so frequently alludes (E/CN.12/604) do, nevertheless, appear to indicate that the rates of urbanization, education and occupational changes often conform poorly with economic and social conditions or requirements. These latter observations suggest that various modes of remedial action may in fact be called for.

Policy affecting, specifically or incidentally, the geographic displacements of people, or their rates of transition from one socio-economic category to another, should be thought of in terms of measures aiming at an improved balance between demographic, economic and social structural changes. Naturally any modification of economic and social conditions, spontaneous or induced, may also entail demographic consequences that are neither specifically intended nor necessarily a cause for concern.^{18/}

In relation to the trends and prospects of economic and social change, on the other hand, the high rate of population growth has calculable consequences in terms of employment, the requisite rates of saving and investment, expansion of food production, etc. These consequences appear at least in global or macro-economic schemes whose level of abstraction is high. The rate of increase in the number of inhabitants also adds a note of great urgency to the achievement of high rates of economic growth.

^{18/} For example, in some conditions a decrease in the birth rate may be a consequence of greater urbanization, increased education, etc. While this may be an incidental outcome of economic development, it need not form any part of the specific development objectives nor need it call for their revision. However, if the indications point in such a direction, the calculated population projections at least would have to be revised accordingly.

Of the greatest practical importance, in relation to developmental tasks, are the various structural and redistributive tendencies which appear within the growth of the population. Thus, the generally high rate of increase tends to provoke a disproportionately rapid growth in a limited number of cities. The high birth rate implies a high ratio of children to adults and rapid increases in numbers of children and adolescents. There are also redistributive tendencies in the economic and social characteristics of the population, with dynamics peculiarly linked to age composition, geographic movement, etc. Examples include an accelerated growth of manpower under conditions of urbanization due to greater economic activity on the part of urban women; general increases in literacy as successive age groups in the population derive more and more benefit from an expanding school system; and transitions from agricultural to manufacturing and service occupations, especially on the part of young and geographically mobile persons.

It is these specific population changes which most directly affect the numerous concrete and detailed problems arising within the general process of economic and social change, such as those relating to employment, savings, production and consumption of particular goods and services, markets, transport costs, housing, education, public health, etc. Practical policy in these several respects is not fully informed unless the detailed demographic conditions are adequately taken into account in the pertinent calculations. The findings of demographic analysis, in some instances, may then give cause for significant revisions and modifications in detailed plans and programmes. Eventually, the considerations concerning the segmental plans must be brought together in a balanced review and reconciliation of overall development objectives, against the more general demographic background. For example, excessively rapid urbanization is to be prevented, therefore a larger part of the inevitable population growth will have to be absorbed more satisfactorily in rural areas or in small towns.

The demographic task, in this connexion, is extensive and intricate. It can be performed only by persons who have attained special competence in the techniques of demographic analysis, in relation to correlated

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economic and social conditions. While technicians with this particular expertise are few in Latin America, international action must pursue the following objectives:

(1) To bring the importance of the matter to the attention of the Governments;

(2) To train nationals in the region in methods of technically adequate analysis of demographic and related facts;

(3) To assist interested Governments in the establishment of national demographic services for the study of demographic factors in relation to development problems in a number of spheres of practical action;

(4) To carry out, sponsor and co-sponsor, in the interim and at the international level, some of the necessary studies and other action tending to modify present deficiencies in Latin America in the population field.

However, it is necessary to be realistic. Based as it is on existing resources and undertakings, the aims of the ECLA/CELADE programme are as follows:

(1) To meet current needs for demographic data, estimates and projections as they arise in the work of ECLA, the ECLA Advisory Groups, and specialized agencies;^{19/}

(2) To give technical demographic advice to Governments as requested;^{20/}

(3) To develop concepts and methods of efficient analysis as required in connexion with the study of population phenomena relevant

^{19/} Including assembly of data, estimates and projections in the Statistical Supplement of the Economic Bulletin for Latin America; preparation of more detailed population analyses and projections requested by the ECLA Advisory Groups; preparation, at this time, of a report on demographic aspects of education in Latin America for the forthcoming ECLA/UNESCO Conference on Education and Economic and Social Development.

^{20/} Advice has been given to several countries, in connexion with their census plans, concerning procedures most likely to yield data of analytic relevance for the study of manpower, internal migration, etc.

to economic and social development problems, for immediate application to the detailed new census data expected to become available in the course of the next two years;^{21/}

(4) To promote technical assistance, through national demographic case studies in co-operation with interested Governments, aiming, where circumstances warrant it, at an eventual institutionalization of demographic work, in relation to national economic and social programmes, in the countries concerned.^{22/}

The scope of the programme is necessarily modest, for so also are the combined demographic resources of ECLIA and CELADE. The heavy engagement of CELADE in the teaching function must not be overlooked. A more extensive programme would seem desirable both in relation to the programmes recommended by the Population Commission and in view of the special importance of the population factor in Latin America. The programme might gain in coherence and objective if ampler provision could be made at least for co-operative projects between demographers and economists (especially in relation to manpower and employment studies), and for a more definite plan of publications, including, if resources make it possible, a comprehensive standard work in which the demographic situation in Latin America might be more systematically surveyed.

In addition, it is well worth while to study the feasibility of incorporating in the programme particular items on which the Population

^{21/} Work is now concentrated on concepts and methods relating to estimates and projections of urban and rural population; the use of population models for the analysis of population trends in countries with defective vital statistics registration; the use of a conceptual model of the demographic process of urbanization; and the preparation of a manual on methods of census evaluation. In addition, the possibility of carrying out a survey of rural-urban migration, based on a sample of new census returns, is being actively explored.

^{22/} In co-operation with ECLIA and CELADE, a technical assistance expert is currently developing a programme of demographic studies in Colombia.

Commission has made certain recommendations.^{23/} The additional items relevant to Latin America and not now forming part of the ECLA/CELADE programme are listed below:

(1) Regional co-operation in the world-wide surveys of major aspects of demography (e.g. fertility, mortality, urbanization, etc.);

(2) Methods for the projection of urban and rural population, manpower and family units most suitable and relevant for Latin American purposes;

(3) Pilot study of the factors affecting trends in the sectoral composition of manpower, in a Latin American country;

(4) Surveys of demographic and related factors in urbanization - like the one recently carried out in El Salvador - as further contributions to the long-range programme of concerted action in the field of urbanization under consideration by the Social Commission;

(5) Studies of population and manpower in relation to employment, capital requirements, and types of development investment most effective in the absorption of the growth of manpower in Latin America;

(6) Organization of a regional team of experts to render advice and assistance to interested Latin American Governments in national demographic projects and national or sub-regional seminars on the evaluation, analysis and utilization of census data;

(7) Concerted efforts for the improvement of civil registration procedures;

(8) Projects of analysis of sample census returns, and of the uses of census data as sampling frames in the organization of post-censal surveys (e.g. of manpower).

Various modes of co-operation might also be intensified, such as the exchanges of experience in the demographic field made by ECA and ECAFE, the regional demographic centre in India, and the demographic centres for Mexico and Central America, and for Africa, whose establishment the Population Commission recommends. ECLA, CELADE, or both, might

^{23/} See Population Commission, Report of the Eleventh Session, op.cit., especially chapter X.

profitably participate in international population conferences (e.g. the Asian Population Conference to be held, under ECAFE auspices, in 1962 or 1963; or the World Population Conference whose preparation for 1964 or 1965 has been suggested), as well as in regional conferences or seminars on other matters in which a consideration of population factors is important.