LATIN AMERICAN CONFERENCE ON CHILDREN
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DEMOGRAPHIC ASPECTS OF INFANCY
AND YOUTH IN LATIN AMERICA

presented by

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## INTRODUCTION

In these pages a somewhat restricted meaning of "demographic" has been adopted as an appropriate frame of reference for a demographic background paper. Although most demographers, as population analysts, would consider the broad field of the social and economic determinants and consequences of demographic phenomena to lie within their competence, in the present Seminar these larger aspects have been reserved for the substantive papers prepared by various specialists. Attention in this paper has been focused on a description and analysis of the available information on the demographic situation relating to infancy and youth in Latin America. The approach is designated as analytical as well as descriptive in the sense that:

(a)   It strives to sift out the more significant facts in preference to presenting a heavy, unimaginative recital of every detail. The details, in so far as data are available, are to be found in the tables. Only the more relevant of these are discussed in the text.

(b)   The determinants of the differences observed between countries and within countries are discussed albeit only in terms of strictly demographic variables (i.e., demographic variables such as mortality, fertility and migration). It is hoped thereby to provide the non-demographer with some understanding of the demographic processes involved in order that he may be cognizant of the conditions under which presently existing patterns might be modified in a given manner.

The paper is divided into two parts, the principal of which occupies itself with the basic data on age and sex composition which are available for all countries in their recent censuses of population. The presentation of the data is preceded by a discussion (Section A) of the factors that determine the youthfulness or the oldness of a population, i.e., the proportion of the total population that will be in the younger and the older ages. Contrary to the general impression, the level of fertility is much more important than the level of mortality in accounting for the average age of a population. While low fertility will always lead to an old population (with relatively few people in the younger ages), the effect of lower mortality is actually to make a population slightly younger by increasing the proportion of the population in the younger ages. To illustrate how this works out, the best available information with regard to these variables is drawn upon to formulate for each country, as well as for the region as a whole, the theoretical or expected proportion of the population under 20 years of age with respect to the total population.

Section B examines the observed proportion under 20 years of age according to the latest censuses for the twenty republics of Latin America and for Puerto Rico. In almost all the high fertility countries these observed proportions are discovered to be less than the expected proportions formulated in Section A. After a consideration of these divergencies, it is concluded that because of declining mortality the infant-youth population in these high fertility countries has been

increasing even faster than the total population and will continue in the
immediate future to increase faster as long as the level of fertility
remains unchanged at its present high level; furthermore, because of
selective census under-enumeration, the infant-youth population of the
high fertility countries is probably at present proportionately greater
than indicated by census figures.

A comparison of the high fertility countries and the moderate and
low fertility countries with respect to the population in the ages 0 to
6 (pre-school) and 7 to 14 (elementary school) discloses that the high
fertility countries have more persons in the ages 0 to 6 than in the 7 to
14 ages (with the implication that each successive age cohort entering
school age will be significantly larger), whereas the reverse is true for
moderate and low fertility countries. Furthermore, in those countries
with two recent censuses, the proportion of the population in the ages
0 to 6 in the countries with highest fertility has generally been
increasing faster than the proportion in the ages 7 to 14; this pattern
is not observed in the countries with lower fertility.

In Section C a brief examination is made of the sex ratio among the
infant and youth segment of the total population in the countries of the
region. In accordance with the biological phenomenon of slightly more
male than female births (followed by slightly higher male mortality at
all ages), the male population under 20 is found to exceed or at least to
be equal to the female population in every country.

The final section (Section D) of this part turns to geographical
distribution and reviews the differences in the distribution of infants
and youths in the urban and rural zones of the somewhat fewer countries
(16 out of the 21) which have tabulated census data on age composition
separately by urban and rural residence. Partly because of higher rural
fertility and partly because of the rural exodus of youths and young
adults, the rural populations are younger than the urban populations in
the sense of having a (generally very marked) larger proportion of the
total population under 20 years of age. The differences are greatest in
the pre-school ages. Evidence is presented to show that rural to urban
migration (at least among females) begins under 15 years of age and
affects the sex ratios of the urban and rural populations in the ages
7 to 14.

The second and final part of this paper is devoted to data on the
differential distribution of infants and youths into different kinds of
families. Since hardly any of the countries of Latin America have
tabulated their census data in terms of families, several tables from a
special programme of family tabulations from the 1960 census of population
in Puerto Rico are selected for analysis to illustrate the usefulness of
this kind of data. One table on the distribution of large-children
families according to different kinds of family structure shows that a
proportionately smaller share of large-children families are found in
each of certain kinds of families less qualified for raising children:

/non-husband-wife

non-husband-wife families (i.e., "broken families") with a male head or with a female head or husband-wife families whose head is 65 years of age or over. Husband-wife families where the head is under 65 have proportionately more large-children families; only in families where the head is employed in agriculture is this true, however. In the non-agricultural sector, lower income families with more large-children families offset the fewer large families in the higher income group of families.

Another table studies school attendance and school retardation in the ages 6 to 11 by family earner status among husband-wife families whose head is not employed in agriculture. When the level of family income is not taken into consideration, it is found not very surprisingly that school attendance is poorest and school retardation is worst in families with no earners at all and that both improve with improvement in family earner status; less expected is the finding that educational performance is best of all in the considerable number of families (25 per cent of all these families) which have two or more full-year earners. This last relationship largely disappears when families are divided into lower and higher family income groups. In the lower income group, it is actually reversed; where the presence of two or more full-year earners probably signifies dire necessity more than just a desire to live more comfortably, both school retardation and school attendance are poorer than in families with only one full-year earner.

Part I

## A. THE DEMOGRAPHIC DETERMINANTS OF AGE STRUCTURE

Economically underdeveloped countries with high levels of fertility and mortality invariably have young populations with a low mean age because an especially large proportion of the total population is concentrated in the younger ages and only a very small proportion in the older ages. The developed countries, with their low fertility and mortality, have relatively old populations with few young people and proportionately many older ones. Until not many years ago, demographers generally shared the misconception of the lay public that the tremendous reduction in mortality - which raised the average expectation of life and permitted people to live longer - was the principal factor responsible for the "aging" of populations that has been observed in the modern industrialized countries. Here in Latin America most of the countries have experienced substantial reductions in mortality, especially since the end of World War II, as a consequence of which their rates of population growth have attained well-publicized and unprecedented levels. One saving feature of the supposed aging effect of reduced mortality is that the infant and youth populations should not have been increasing at such a rapid pace as the total population.

The reality, of course, has been very different. The available data indicates that, if anything, the age structures of all except four or five of the countries of Latin America may have become younger rather than older. Before immersing ourselves in the facts and figures, however, it is worthwhile to pause briefly in order to consider why this should be the case. An understanding of the causes underlying the present demographic situation of infants and youths in Latin America will disclose at the same time the conditions under which the situation might assume a different character.

In the past 10 or 15 years theoretical and experimental research with theoretical population models have enabled demographers to establish clearly that changes in the level of fertility were the decisive factor in the historical aging of populations that accompanied economic development. The over-all effect of the decline in mortality has been small; relatively modest increases in the younger ages have been distributed over all the remaining ages in scarcely noticeable fashion. In view of the special interest of this Seminar in the infant and youth populations, the proportionate increase in the younger ages is underscored here. Strange as it may seem, the effect of reduced mortality, although not very great, has been to make the population younger rather than older! The paradox warrants clarification.

The effect of fertility and mortality levels on age structure
is seen most clearly in conjunction with stable population theory.
A stable population is a population characterized by constant,
unchanging age structure and rate of growth. Such a stable popula-
tion results when constant age-specific fertility and mortality
rates prevail over a sufficiently extended period of time in a
closed population (i.e., one not subject to external migration).
It can be shown that the constant age structure of a stable popu-
lation is uniquely determined by its combined levels of mortality
and fertility. Of exceptional interest, therefore, is the recent
research of demographers at the United Nations and elsewhere
into the effect of specified levels of either fertility or
mortality when the other variable is held constant at different
levels.1/

The two United Nations documents are recommended for those
who prefer a clear presentation of the practical implications
supported by a minimum of technical, mathematical justification.

In the study of the United Nations six different levels
of fertility and mortality were selected in terms respectively
of the gross reproduction rate (GRR) and the expectation of life

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1/  Among the many works that might be cited are the following:

United Nations, The Aging of Populations and its Economic
and Social Implications, United Nations Sales No.: 1956.XIII.6.
United Nations, The Future Growth of World Population,
pp. 39-51, United Nations Sales No.: 58.XIII.2.
Ansley J. Coale, "The Effects of Changes in Mortality and
Fertility on Age Composition", The Milbank Memorial Fund
Quarterly, Jan. 1956, Vol. XXXIV, No.1, pp. 79-114.
Leon Tabah, Relations Between Age Structure, Fertility,
Mortality and Migration, 1965 World Population Conference
Background Paper (B.7/15/E/476).

at birth ($^{o}$eo).2/ The age structures of each of the stable popula-
tions determined by the 36 different possible combinations of
fertility and mortality were calculated and consolidated for
analysis into three broad age groups: 0 to 14, 15 to 59 and
60 and over. In the present document the original unpublished
five-year age groups have been recombined in Table 1 to show the
proportion of each stable population in the ages 0 to 19 and 15 to 19.3/
Table 1 also shows the crude birth, death and natural increase
rates corresponding to the levels of fertility and mortality
in each stable population.4/ For the population in the ages

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2/ The gross reproduction rate, defined as the average number
of female births per woman born to a cohort of women
surviving through the reproduction ages and reproducing
in accordance with current age-specific fertility rates,
is calculated as the sum of the age-specific fertility
rates.

The expectation of life at birth is defined as the average
years of life to which new-born children may look forward
assuming exposure throughout their lives to current age-
specific mortality rates.

The gross reproduction rate and the expectation of life at
birth, both have the advantage over the crude birth and
death rates in being pure measures of fertility and mortality
respectively in the sense of being unaffected by the age
structure of the population.

3/ The data on the population in the three five-year age
groups comprised within the ages 0 to 14 were not accessible
at the time this report was prepared.

4/ Some readers may note that the crude death rate varies with
changes in fertility when the level of mortality in terms of
life expectancy has been held constant. Similarly, the crude
birth rate varies with changes in mortality when the level
of fertility as measured by the gross reproduction rate is
held constant. These discordances result from the fact that
the crude birth and death rates are influenced by differences
in age structure of the various stable populations (as well
as by the respective level of fertility or mortality). On
the other hand, as was noted above, the gross reproduction
rate and the expectation of life at birth are both independent
of the effect of differences in age structure.

Table 1

PROPORTION IN SELECTED YOUNG AGE GROUPS OF TYPICAL STABLE POPULATIONS
REFLECTING DIFFERENT LEVELS OF FERTILITY AND MORTALITY

| Gross reproduction rate (GRR) | Expectation of life at birth ($\overset{o}{e}_{o}$) | Percent of population aged | | Crude rates per 1 000 population | | |
|---|---|---|---|---|---|---|
| | | 0-19 | 15-19 | Birth rate | Death rate | Natural increase |
| 4.0 | | 56.2 | 10.8 | 63.8 | 53.0 | 10.8 |
| 3.0 | | 48.7 | 10.2 | 50.5 | 50.2 | 0.3 |
| 2.5 | 20 | 44.0 | 9.8 | 42.8 | 49.1 | -6.3 |
| 2.0 | | 38.0 | 9.0 | 34.2 | 48.6 | -14.4 |
| 1.5 | | 30.4 | 7.8 | 24.8 | 49.7 | -24.9 |
| 1.0 | | 20.9 | 6.0 | 14.6 | 54.4 | -39.8 |
| 4.0 | | 59.1 | 10.9 | 59.8 | 35.3 | 24.5 |
| 3.0 | | 51.7 | 10.4 | 47.7 | 33.7 | 14.0 |
| 2.5 | 30 | 46.9 | 10.0 | 40.6 | 33.2 | 7.4 |
| 2.0 | | 40.7 | 9.3 | 32.7 | 33.6 | -0.9 |
| 1.5 | | 32.8 | 8.1 | 23.8 | 35.0 | -11.2 |
| 1.0 | | 22.5 | 6.2 | 14.0 | 39.9 | -25.9 |
| 4.0 | | 60.9 | 10.9 | 57.3 | 24.1 | 33.2 |
| 3.0 | | 53.5 | 10.4 | 46.0 | 23.3 | 22.7 |
| 2.5 | 40 | 48.5 | 10.0 | 39.3 | 23.2 | 16.1 |
| 2.0 | | 42.2 | 9.3 | 31.7 | 23.7 | 8.0 |
| 1.5 | | 34.1 | 8.2 | 23.1 | 25.6 | -2.5 |
| 1.0 | | 23.2 | 6.2 | 13.6 | 30.9 | -17.3 |
| 4.0 | | 62.3 | 10.8 | 55.7 | 16.2 | 39.5 |
| 3.0 | | 55.1 | 10.5 | 44.9 | 15.8 | 29.1 |
| 2.5 | 50 | 50.0 | 10.0 | 38.4 | 16.0 | 22.4 |
| 2.0 | | 43.6 | 9.4 | 31.1 | 16.8 | 14.3 |
| 1.5 | | 35.2 | 8.2 | 22.7 | 18.8 | 3.9 |
| 1.0 | | 24.1 | 6.3 | 13.4 | 24.3 | -10.9 |
| 4.0 | | 63.7 | 10.8 | 54.1 | 9.4 | 44.7 |
| 3.0 | | 56.5 | 10.5 | 43.8 | 9.6 | 34.2 |
| 2.5 | 60.4 | 51.5 | 10.1 | 37.7 | 10.1 | 27.6 |
| 2.0 | | 45.1 | 9.5 | 30.6 | 11.1 | 19.5 |
| 1.5 | | 36.6 | 8.4 | 22.5 | 13.5 | 9.0 |
| 1.0 | | 25.1 | 6.4 | 13.3 | 19.0 | -5.7 |
| 4.0 | | 64.9 | 10.8 | 52.7 | 4.1 | 48.6 |
| 3.0 | | 57.8 | 10.5 | 42.9 | 4.8 | 38.1 |
| 2.5 | 70.2 | 52.8 | 10.2 | 37.0 | 5.5 | 31.5 |
| 2.0 | | 46.5 | 9.6 | 30.1 | 6.8 | 23.3 |
| 1.5 | | 37.8 | 8.5 | 22.3 | 9.4 | 12.9 |
| 1.0 | | 26.0 | 6.5 | 13.3 | 15.1 | -1.8 |

Source: United Nations, Population Branch, Bureau of Social Affairs. Unpublished worksheets used in the preparation of "The Aging of Populations and its Economic and Social Implications" and "The Future Growth of World Population" (op. cit.).

0 to 19 the data of Table 1 are shown graphically in Figure 1 where free-hand curves have been drawn through the plotted points representing the proportion of the population under 20 years of age corresponding to each different level of mortality. The vertical distance between any two curves denotes the change in age structure associated with a change in mortality when the level of fertility is held constant. The difference in height between any two points on the same curve, on the other hand, describes the change in age structure associated with a change in fertility when the level of mortality is held constant.

Several outstanding features of Table 1 and Figure 1 are especially worthy of note:

(a) A decrease in mortality does in fact bring about an increase in the proportion of the population under 20 years of age.

(b) The change in age structure associated with changes in mortality is small compared with the change associated with changes in fertility. Whereas the proportion under 20 years drops between 35 and 39 percentage points 5/ as the gross reproduction rate decreases from 4.0 to 1.0, this proportion rises no more than between 5 to 9 percentage points when the level of mortality decreases from a life expectancy of 20 years to 70.2 years. Regardless of the level of mortality, the population is youthful when the level of fertility is high and the population is old when the level of fertility is low.

(c) This difference between the effect of changes in mortality and fertility is seen in Table 1 as especially sharp for the age group 15 to 19. The effect of mortality is concentrated almost entirely in the ages under 15; it is hardly noticeable in the 15 to 19 age group. While the effect of a change in fertility is also greater in the ages under 15 than in the ages 15 to 19, its influence on the latter group is nonetheless considerable.

The observed close association between age structure and the variables fertility and mortality does not necessarily imply that these two variables are determinants of age structure, and much less does it explain how they exercise their determining influence. Coale was perhaps the first to put his finger on the precise properties of fertility and mortality which produce their effect on age structure. 6/ The effect of mortality is less than that of fertility because mortality occurs at all ages and a change in the level of mortality usually (although not necessarily) represents a change in all age-specific rates. Coale demonstrated that a change in

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5/ According to whether the level of mortality is held constant at a high or a low level.

6/ Coale, op. cit.

Figure 1

PROPORTION OF POPULATION UNDER 20 YEARS OF AGE IN
STABLE POPULATIONS CORRESPONDING TO DIFFERENT
LEVELS OF MORTALITY AND FERTILITY



Proportion of
population
under 20 years
(percentages)

Expectation of life at birth:70.2
Expectation of life at birth:60.4
Expectation of life at birth:50
Expectation of life at birth:40
Expectation of life at birth:30
Expectation of life at birth:20 years

Gross rate of reproduction
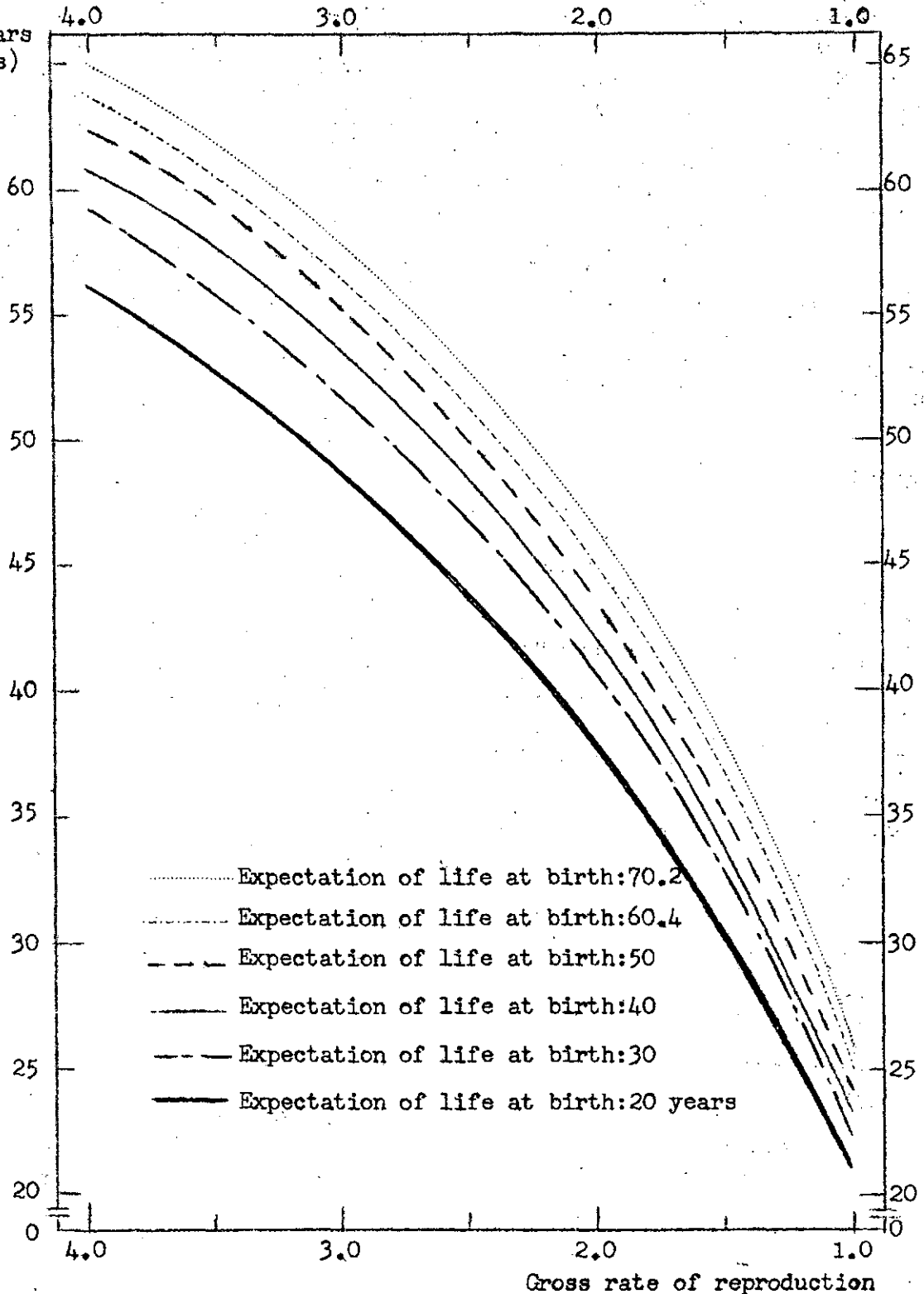
/mortality that

mortality that was proportionately the same at all ages would have no effect whatsoever on the age structure. The effect that the historical decline in mortality has in fact had on age structure is due to the historical fact that this decline has not been the same at all ages, but rather has observed a different pattern, in its broad outline the same for all countries for which statistical information is available. In all high mortality countries, mortality is extremely high in the youngest and oldest ages. Wherever mortality has declined secularly, the drop has been greatest in the youngest ages, next in intensity in the middle ages, and proportionately least of all in the older ages. 7/ The effect of the decline in mortality has been to make a somewhat younger age structure because the reduction has been greatest in the youngest ages; the effect of the decline has been small because partially compensating decreases in mortality have occurred at other ages. If future gains in mortality should be predominantly in the older ages, a decline of this kind would have an aging effect. On the other hand, if all of the historical decline in mortality had occurred at infancy, the effect of the decline would have been in the same direction and of about the same magnitude as that produced by an increase in fertility. The immediate impact of a change in fertility, of course, falls entirely on the population of age 0.

The effect of a decrease in fertility can most easily be understood by referring concretely to a hypothetical case in Table 1. Let us start with a stable population of high fertility (the gross reproduction rate at 3.0) and moderate mortality (life expectancy of 50 years), levels not very different from what are found in many countries of Latin America. In this case the rate of natural increase is fast (about 30 per 1,000 or 3 per cent per year) with the crude birth rate around 45 and the crude death rate around 15. The total number of births (which is obtained from the product of the crude birth rate and the total population) will be 3 per cent larger every year than the year before since the total population is increasing 3 per cent a year and the crude birth rate is constant. The result is to enlarge the base of the typical population age pyramid and to shrink the upper part corresponding to the older ages. There are proportionately fewer people in these older ages not only because the number of older people has been more depleted by their longer exposure to mortality, but also because they come from originally much smaller birth cohorts. This stable population is a young, high fertility population.

Now let the fertility decline to a gross reproduction rate level of 1.5, while holding mortality constant. The crude birth rate becomes only a little more than 20 per 1,000 and the rate of population growth is slightly less than 5 per 1,000. As a consequence of the drop in fertility

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7/ In terms of five year age groups, the reduction has been proportionately greatest in the 5 to 9 year age group and thereafter somewhat less in each successive age group. Despite impressive progress in lowering mortality in ages under 5, the first year of life especially remains very much more subject to the risk of death than the years immediately following. (See United Nations, Modelos de Mortalidad por sexo y edad, United Nations Sales No. 55.XIII.9.)

each successive birth cohort, instead of being 3 per cent larger, is only about 0.5 per cent larger. The age pyramid is much less broad at the base and has a more ample girth near the top. 8/ The percentage of the population under 20 has decreased from 56.6 per cent to 36.6 per cent. The change that has taken place is at the oldest and youngest ages of the pyramid, it should be noted. The pivotal point is at the centre (generally between the ages of 25 and 34) of the pyramid; around these ages there is very little change in age structure. Of the three infant and youth age groups used in this paper, it is the pre-school population (0 to 6 years) which is the most affected by any change in the level of fertility, the elementary school age group (7 to 14 years) the next most affected, while the 15 to 19 year group of adolescents and youth is the least affected of the three.

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The stable population relationship between age structure and levels of fertility and mortality becomes a very useful tool in the case of countries whose populations can be supposed "approximately" stable because fertility and mortality have been "relatively" constant and external migration has been of little significance. A careful and detailed analysis of the proportion of the population in each age group permits inferences to be drawn about the prevailing level of fertility which is the factor most closely associated with changes in age structure; in addition, any irregularities in an approximately stable population provide either evidence of deficiencies in census enumeration by age or clues regarding the imperfect realization of the necessary stable population conditions with respect to fertility, mortality or migration. It will be possible below, for example, to point to indications of under-enumeration of the infant-youth population in the censuses of some Latin American countries.

It is proposed in the remainder of this section to draw upon the most recent estimates of fertility and mortality in the countries of Latin America in order to determine the proportion of their population in the infant-youth ages under stable population conditions. In this connection, certain complex technical questions, some as yet only partially resolved, arise concerning the conditions under which observed populations can be considered to approximate stable populations sufficiently enough

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8/     Had the gross reproduction rate been reduced to 1.0 instead of to 1.5, a negative rate of population growth would have resulted. Each successive birth cohort would then have been smaller by 1 per cent, rather than larger. This stable population will have an inverted age pyramid except at those ages (the very young and the older ages) where mortality is high enough to overcome the initial advantage of the older cohort, i.e., if mortality in the first year of life is 30 per 1,000 or 3 per cent, the population age one will be smaller than the population at age 0 despite the fact that its size at birth was one per cent larger. In certain countries of Europe where fertility is very low (even though these countries, because of changes and fluctuations in fertility and mortality, do not have stable populations), partially inverted age pyramid of this kind are to be found. The proportion of infants and youths in countries like this is usually small.

/for stable

for stable population age structure theory to have some relevance. A systematic treatment of these problems is clearly beyond the scope of this document; reference to some of these problems will be made briefly, as the need arises in the analysis of the census age structure of specific countries. Several observations should be made at the present moment, however.

First, it is generally supposed that countries of high fertility are Malthusian populations in the sense that no voluntary controls of fertility are practiced; the only checks on maximum biological fertility to be found are those relatively stable social and cultural practices such as age at marriage, celibacy, ban on widow remarriage, prolonged lactation, etc. For these reasons, the approximately constant fertility required for a stable population age structure is frequently attributed to high fertility countries. Since fertility is the principal determinant of stable population age structure, the high fertility of almost all underdeveloped countries is indeed fortunate in at least this statistical respect. The declining mortality that has been observed in the postwar world among the underdeveloped countries and most of all in Latin America has not seriously modified the stable population characteristics of their age structures. 9/,10/

Column (5) of Table 2 shows the proportion of the population under 20 years of age that could have been expected in each of the 21 countries of Latin America at the time of the most recent census if they had had stable populations with age structures corresponding to the estimated levels of fertility and mortality shown in columns (3) and (4). The range varies all the way from 33.2 per cent in Uruguay to 60.1 per cent in Costa Rica. The five countries expected to be least youthful (Uruguay, Argentina, Cuba, Chile and Puerto Rico) stand apart, because of their lower fertility as countries in which the stable population assumption is of most doubtful validity. On the other hand, the next two countries with populations proportionately low in the infant-youth ages, Haiti and Bolivia, are in a different category. Two of the least economically developed in the region, they have moderately high fertility; the low incidence of young people expected in their population is caused by high mortality rather than by low fertility.

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9/    See, for example, United Nations, "The Future Growth of World Population" (op.cit.), pp. 42-43.

10/   Migration is another demographic variable capable of significantly distorting the effect of fertility and mortality on the age structure of a population. Migration, however, does not play an important role today in determining the age structure of most countries in Latin America. In most cases the volume of migration has been too small relative to the number of births or deaths to have an important effect. Only in the case of Argentina, Uruguay, Venezuela and, above all, Puerto Rico, does one have to reckon seriously with migration. While immigration has been numerically large in Brazil, these numbers are relatively small when considered in the context of the size of Brazil's total population.

Table 2

PROPORTION UNDER 20 YEARS OF AGE IN STABLE POPULATION CORRESPONDING TO ESTIMATED
LEVELS OF FERTILITY AND MORTALITY AT TIME OF LATEST CENSUS

(The 20 Republics of Latin America and Puerto Rico)

| Country<br><br>(1) | Year of<br>Census a/<br><br>(2) | Gross<br>reproduction<br>rate b/<br>(3) | Expectation<br>of life<br>at birth c/<br>(4) | Stable population<br>proportion under<br>20 years of age d/<br>(5) |
|---|---|---|---|---|
| Costa Rica | 1963 | 3.5 | 60 years | 60.1% |
| Honduras | 1961 | 3.6 | 48 | 59.4 |
| El Salvador | 1961 | 3.3 | 50 | 57.5 |
| Guatemala | 1950 | 3.4 | 40 | 56.8 |
| Venezuela | 1961 | 3.1 | 55 | 56.6 |
| Mexico | 1960 | 3.1 | 54 | 56.5 |
| Nicaragua | 1963 | 3.1 | 54 | 56.5 |
| Peru | 1961 | 3.1 | 52 | 56.1 |
| Dominican Republic | 1950 | 3.2 | 42 | 55.7 |
| Brazil | 1960 | 3.0 | 55 | 55.6 |
| Ecuador | 1962 | 3.2 | 45 | 55.0 |
| Paraguay | 1950 | 2.9 | 50 | 54.2 |
| Colombia | 1951 | 2.9 | 47 | 53.5 |
| Panama | 1960 | 2.7 | 57 | 53.2 |
| Bolivia | 1950 | 2.9 | 40 | 52.7 |
| Haiti | 1950 | 2.8 | 35 | 51.1 |
| Puerto Rico | 1960 | 2.3 | 70 | 50.2 |
| Chile | 1960 | 2.2 | 55 | 47.0 |
| Cuba | 1953 | 2.1 | 57 | 45.8 |
| Argentina | 1960 | 1.4 | 65 | 35.2 |
| Uruguay | 1963 | 1.3 | 67 | 33.2 |

a/ Most recent census for which data on age composition was available at time this document was
prepared. A number of countries have had a more recent census than that indicated here, e.g.,
Guatemala (1964), Dominican Republic (1960), Paraguay (1962) and Colombia (1964).

b/ Gross reproduction rates taken from Table 5.1, p. 66 of the Population Bulletin of the United Nations,
No. 7, 1963, with special reference to conditions and trends of fertility in the world, United Nations
Sales No.: 64.XIII.2. The fertility level in this source was estimated in terms of the crude birth
rate as well as the gross reproduction rate. Although ten of the 21 estimates refer to an earlier
date than that of the census, more current estimates presented by Carmen A. Miró in "La Población
en América Latina en el Siglo XX" prepared for the Primera Asamblea Panamericana de Población,
11-14 de agosto de 1965 at Cali, Colombia, indicate that the crude birth rate in nine of these ten
countries has not changed. The exception is Honduras for which the Miró crude birth rate is only
between 45 and 50 for the period 1955-60 as compared with the United Nations 54 for 1951-56. On
the other hand, although the two sets of estimates refer to the same time period in the case of the
Dominican Republic, the Miró crude birth rate of between 48 and 54 is higher than the United Nations
estimate of 44.

c/ With the exception of Puerto Rico, expectation of life figures are taken (and interpolated where
necessary) from cuadro 4, de vol. VII, No. 1, del Suplemento Estadístico del Boletín Económico de
América Latina de la Comisión Económica para América Latina (CEPAL), octubre de 1962. This table
gives estimated ranges of life expectancy and of the crude death rate for the periods 1945-50 and
1955-60. The figure for Puerto Rico was taken from Table 26 of the United Nations 1963 Demographic
Yearbook, United Nations Sales No.: 64.XIII.1. While the crude death rates cited by Miró are
substantially lower for five countries, she acknowledges that her mortality statistics are less
reliable than her fertility data because "sometimes based on recognized imperfect registration data".

d/ The proportion of the population under 20 years of age was interpolated graphically from the stable
population curves of Figure 1.

Before confronting these expected age structures with the observed census data in Section B, it is worthwhile to consider briefly where Latin America as a region ranks in youthfulness of population in comparison with other regions. Since research into average regional age distribution for the other regions was excluded from the scope of this document, 11/ the situation is perhaps most readily grasped in terms of estimated regional levels of fertility and mortality. Estimates in terms of crude birth and death rates for the major regions as prepared by the United Nations provide a rough picture of different regional levels:

<div align="center">

Table 3

ESTIMATED CRUDE BIRTH AND DEATH RATES,ᵃ/1958-62
FOR MAJOR REGIONS OF WORLD
</div>

| Region | Crude Birth Rate 1958-62 | Crude Death Rate 1958-62 |
|---|---|---|
| Africa | 46 | 23 |
| North America | 24 | 9 |
| Central America | 43 | 14 |
| South America | 41 | 13 |
| Asia | 43 | 20 |
| Europe | 19 | 10 |
| U.S.S.R. | 24 | 7 |

Source: United Nations, 1963 Demographic Yearbook, (op. cit.), Table 2

a/  Number of births (or deaths) per 1,000 population per year.

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11/  Estimates of regional age distribution almost necessarily have the character of approximations. Even when all the countries of a region have an end-of-decade census, they generally do not all select the same year. In Latin America all except two countries conducted a census around 1950 and all except three have had one since. Since the three countries without a census around 1960 were not the same as the two countries around 1950, a postwar census exists for all countries. It is possible to calculate a regional age distribution using censuses ranging from 1950 to 1963 (the censuses indicated in Table 2). One obtains in this way a figure of 51.9 per cent for the population under 20 years of age - 101.8 million persons out of a total population of 196.3 million. Corresponding figures for Africa and Asia would be even less satisfactory because of the existence of countries that have never had a census.

From the levels of fertility alone, it can be seen that Latin
America, with its crude birth rate of about 42 per 1,000 must have a
considerably more youthful population than either North America, Europe
or the Soviet Union where the birth rate ranges from 19 to 24. Even in
the Soviet Union where one might suppose a somewhat greater proportion
of young people than in Europe because (in addition to its higher birth
rate) of the reduced number in the age cohorts decimated during World
War II, the 1959 census reports only 37 per cent of the population under
20 years of age 12/ as compared with over 50 per cent in Latin America.
On the other hand, on the basis of these estimated vital rates alone it
is not possible to determine with assurance whether the population of
Latin America is more or less youthful than that of other regions in the
process of economic development. The apparently somewhat lower fertility
(the most important variable) in Latin America (a crude birth rate of
42 per 1,000 vs. 43 in Asia and 46 in Africa) would lead one to suppose
a slightly older population than in either Asia or Africa; its so much
lower mortality (a crude death rate of 13 or 14 per 1,000 vs. 20 in Asia
and 23 in Africa), however, could conceivably override the aging effect
of the lower fertility, resulting in a larger proportion of the population
in the younger ages than in any region of the world. Although the
difference among the three regions, taking each in its totality, is
undoubtedly not of very great significance, generalizations on a regional
level are more deceptive with regard to Latin America than for Asia or
Africa. Pockets of low or moderate fertility are of greater importance
in Latin America (Japan - the only country of importance in Asia with
low fertility - comprises not much more than 5 per cent of the population
of Asia), where the population of Argentina alone is ten per cent of the
total regional population. When in each region only those countries
are considered which have high fertility and a high proportion of young
people, (i.e., holding aside in Latin America the populations of
Argentina, Uruguay, Cuba, Chile and Puerto Rico) there can scarcely be
any doubt that the population of Latin America is younger than that of
any other region.

B. CENSUS DATA ON POPULATION UNDER 20 YEARS OF AGE

When the proportion of the population under 20 years as enumerated
in the most recent censuses for which age data are already available is
compared (see Table 4 13/) with the theoretical proportion expected

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12/    United Nations, 1963 Demographic Yearbook, (op. cit.), Table 5,
       page 226.

13/    Reference is made to the appendix tables for data corresponding to
       every census from 1940 to the present on the numbers of people in
       the ages 0 to 19 and in the total population by sex and on the
       estimated numbers in the three infant-youth age groups used in this
       paper. Similar figures by urban and rural zone of residence are
       also given for those censuses which published the information.

Table 4

PROPORTION OF POPULATION UNDER 20 YEARS OF AGE OBSERVED PROPORTION AT MOST RECENT CENSUS
COMPARED WITH EXPECTED PROPORTION ACCORDING TO STABLE POPULATION MODEL

(The 20 Republics of Latin America and Puerto Rico)

| Country (1) | Census year a/ (2) | Proportion of population under 20 years of age | | |
| | | Expected (3) | Observed (4) | Difference (3)-(4) (5) |
| --- | --- | --- | --- | --- |
| Costa Rica | 1963 | 60.1 | 57.1 | -3.0 |
| Honduras | 1961 | 59.4 | 57.9 | -1.5 |
| El Salvador | 1961 | 57.5 | 54.4 | -3.1 |
| Guatemala | 1950 | 56.8 | 53.3 | -3.5 |
| Venezuela | 1961 | 56.6 | 54.2 | -2.4 |
| Mexico | 1960 | 56.5 | 54.6 | -1.9 |
| Nicaragua | 1963 | 56.5 | 57.9 | +1.4 |
| Peru | 1961 | 56.1 | 53.1 | -3.0 |
| Dominican Republic | 1950 | 55.7 | 55.1 | -0.6 |
| Brazil | 1960 | 55.6 | 52.9 | -2.7 |
| Ecuador | 1962 | 55.0 | 54.8 | -0.2 |
| Paraguay | 1950 | 54.2 | 53.5 | -0.7 |
| Colombia | 1951 | 53.5 | 52.8 | -0.7 |
| Panama | 1950 | 53.2 | 53.2 | 0.0 |
| Bolivia | 1950 | 52.7 | 49.4 | -3.3 |
| Haiti | 1950 | 51.1 | 48.1 | -3.0 |
| Puerto Rico | 1960 | 50.2 | 53.1 | +2.9 |
| Chile | 1960 | 47.0 | 49.4 | +2.4 |
| Cuba | 1953 | 45.8 | 46.0 | +0.2 |
| Argentina | 1960 | 35.2 | 39.1 | +3.9 |
| Uruguay | 1963 | 33.2 | 35.9 | +2.7 |

a/ Most recent census for which data on age composition was available. See footnote (a) of table 2.

b/ Taken from table 2 above.

c/ Calculated from census data in Appendix.

/under the

under the assumption of stable population age structure determined in accordance with estimated levels of fertility and mortality, several observations stand out as particularly pertinent:

(a) The differences between observed and expected values are on the whole relatively small. In no case is the divergence as much as four percentage points and in only two out of 21 censuses is it as much as 3.5; in six censuses the difference is no more than 0.7 percentage points. Although the rank order is somewhat changed, in general the countries which were expected to be characterized by youthful populations are in fact so characterized, and the countries with the smallest proportion of young people were expected to be so.

(b) In all except one (Nicaragua) of the countries with the greatest expected proportion of infants and youths, the observed population is less than the theoretical stable population estimate. Sharply contrasting is the picture in the remaining five countries whose expected youthfulness is less; in all of these countries there are fewer young people than expected.

In interpreting these patterns of divergence, a number of considerations should be borne in mind:

(i) The group of countries in which the observed proportion of youth is greater than the expected are all countries of either low or moderate fertility; because of past declines and/or other irregularities in fertility, their populations cannot be said to conform to the stable population model. Doubts as to the validity of proportions of the population in the younger ages expected on the basis of stable population analysis raises the question whether the systematic excess of observed over expected young population in these countries may not be entirely due to chance. This could well be the case.

Nevertheless, the United Nations study did some investigation into the differing properties of "transitional population" (as it termed populations in which both fertility and mortality have been declining) and the stable population models. Its findings noted that under certain conditions (starting from a specified stable population age structure and with fertility declining according to a specified pattern), the age structure of transitional population will lag behind the eventual age structure that would be approached after the levels of fertility and mortality have ceased to decline any further, i.e., the proportion of youths will not reflect immediately the full decrease expected as a consequence of a lowered level of fertility.14/ While this finding does offer a possible

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14/ United Nations, "The Future Growth of World Population" (op.cit.) pp. 44-48.

explanation of the consistently smaller proportion of the population under
20 than expected in these five countries, too much reliance should
not be placed in it. In the first place, the manner by which fertility
has reached its present low or moderate level has generally been different
in each of these countries so that the relationship between transitional
and stable population age structure would be different in each country
and ways not easily identifiable. Secondly, the decline of fertility
in most of these countries has been accompanied, and sometimes preceded,
by trends in either immigration (Argentina, Uruguay and Cuba) or emigration
(Puerto Rico) that have left significant marks on the age structures.

(ii)   The principal factor in the divergence of observed and expected age
       structure in low fertility countries is that these countries do not
       have stable populations.

The problem with high fertility countries is almost always the
scarcity and poor quality of statistical information. In almost all these
countries there is a considerable margin of error in the estimation of
fertility and mortality levels which would affect the expected age
structure through the selection of not quite the appropriate stable
population model. On the other hand, the observed census data are without
doubt more than usually subject to all the errors of census-taking on
account of the inexperience of these countries in such matters. One of
the most common errors in census data — the disproportionately heavy
under-enumeration of the very young — would tend to lower the observed
proportion in the young ages. In a situation where both the observed and
expected data lack reliability, it becomes difficult to establish
conclusively the principal factor responsible for the divergence between
the age structure observed in the censuses and those expected on the basis
of stable population models.

The fact that this divergence is systematically and almost without
exception (in 14 out of 15 cases in which there is a divergence) in the
same direction i.e., the observed proportion of the total population under
20 years of age is less than the expected proportion, is one of several
clues which indicate that it probably results from a combination of two
factors:   (a) the usual census deficiency of selective under-enumeration in
the youngest ages, and (b) the declining mortality generally characteristic
of these countries. The United Nations study shows that in "semi-stable
populations" (as it characterizes countries — apparently like most of
those in Latin America — with constant high fertility and declining mortality)
the moderate increases in the younger ages brought about in stable
population models by decreases in mortality is not fully reflected in
the age structures which have not yet stabilized in accordance with
their new level of mortality. 15/   For this reason, the observed proportion

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15/   United Nations, "The Future Growth of World Population (op.cit.)
      pp-42-4.

in the young ages will tend to be somewhat less than the theoretically expected proportion.

The implication of these factors for specialistists in infant and youth problems who have recourse to census data is that both relatively and absolutely the infant-youth population (but most especially the infant population of pre-school age),(a) has been increasing since the end of World War II; (b) will continue to increase (as the consequence of already realized reduction in mortality) unless the level of fertility begins to fall, and (c) is at present greater than that indicated by published census figures. The exact magnitude of either the increase that has taken place or the present under-enumeration would necessarily vary from country to country depending upon the extent of the mortality decline and also upon the quality of each individual census. 16/

Further evidence of the effect of these two factors (declining mortality and selective census underenumeration of the very young) can be seen in Table 5 which shows the changing proportion of the population under 20 years of age in the last two censuses for those countries which have had at least two censuses in the past 25 years. The first bloc of eleven countries in Table 5 are the high fertility countries 17/ in all except one of which (Nicaragua, it will be recalled from Table 4) the observed proportion under 20 in the most recent census was less than the theoretical expected proportion; in ten of these eleven countries the proportion under 20 years enumerated in the most recent census is greater than in the earlier census. These recorded increases can in all probability be attributed either to lower mortality in the younger ages or to improved census enumeration of the infant-youth population. Which of these two factors is primarily responsible can probably be determined only by an investigation into the facts country by country. Reasoning deductively from the pattern in Table 5 to explain the pattern in Table 4 leads to no definite conclusion. For example, it can be argued that, if improved enumeration

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16/     One such study of Mexico recently published by CELADE indicates that almost half the divergence between observed and expected population under 20 is due to census under-enumeration. This study showed a total underenumeration of 1,052,700 in the 1960 census of which about 891,300 occurred among the population under age 20. The corrected proportion under age 20 is 55.4 per cent, as compared with 54.6 per cent in the uncorrected data and 56.5 per cent in the theoretical expected population. (Zulma L. Recchini y Miguel Chavira O., República de México, Proyección de la Población Total, por Sexo y por Grupos de Edad, 1960-1980, CELADE, 1965.)

17/     The countries in Table 5 are listed in the same order as in Tables 2 and 4 - according to the theoretical expected proportion under age 20.

Table 5

PROPORTION OF POPULATION UNDER 20 YEARS OF AGE ACCORDING TO THE TWO
MOST RECENT CENSUS IN THE LAST 25 YEARS

(The Republics of Latin America and Puerto Rico)

| Country | Proportion of population under 20 years of age | | | | |
|---|---|---|---|---|---|
| | Most recent census | | Previous census | | Change (3)-(5) |
| | Census year | Proportion under 20 years (percentage) | Census year | Proportion under 20 years (percentage) | |
| (1) | (2) | (3) | (4) | (5) | (6) |
| Costa Rica | 1963 | 57.1 | 1950 | 53.4 | +3.7 |
| Honduras | 1960 | 57.9 | 1950 | 50.7 | +7.2 |
| El Salvador | 1960 | 54.4 | 1950 | 51.9 | +2.5 |
| Guatemala | 1950 | 53.3 | 1940 | 54.0 | -0.7 |
| Venezuela | 1961 | 54.2 | 1950 | 51.9 | +2.3 |
| Mexico | 1960 | 54.6 | 1950 | 52.0 | +2.6 |
| Nicaragua | 1963 | 57.9 | 1950 | 53.7 | +4.2 |
| Peru | 1961 | 53.1 | 1940 | 51.5 | +1.6 |
| Brazil | 1960 | 52.9 | 1950 | 52.4 | +0.5 |
| Ecuador | 1962 | 54.8 | 1950 | 52.5 | +2.3 |
| Panama | 1960 | 53.2 | 1950 | 51.2 | +2.0 |
| Puerto Rico | 1960 | 53.1 | 1950 | 53.2 | -0.1 |
| Chile | 1960 | 49.4 | 1952 | 47.0 | +2.4 |
| Cuba | 1953 | 46.0 | 1943 | 45.9 | +0.1 |
| Argentina | 1960 | 39.1 | 1947 | 40.7 | -1.6 |

Source: Proportions calculated from data in Appendix.

is the prime factor in explaining Table 5, then deficient enumeration in the most recent is no longer a plausible explanation of the pattern in Table 4; hence declining mortality probably is most important in Table 4. On the other hand, if declining mortality accounts for most of the increase in Table 5, there has probably not been much improvement in census enumeration - consequently, deficient enumeration remains a factor to be reckoned with in explaining the divergencies in Table 4.

Data in Table 6 on the distribution of the observed proportion under 20 in the most recent census into pre-school (0 to 6 years), elementary school (7 to 14 years) and adolescent and youth (15 to 19 years) age groups offer little assistance in determining whether the divergence from expected infant-youth population is due primarily to census under-enumeration or instead to the lag between the time mortality declines and the time when the full effect of this decline on the age structure is perceived. The difficulty here is that the decline is primarily in the same ages most seriously affected by census under-enumeration. Their separate effects are for this reason not very easily distinguishable.

The countries in Table 6 are listed in order according to the proportion of the population in all the ages under 20. Noteworthy is the fact that in the youngest populations (and characteristic of the very broad base of their age pyramid) the proportion in the ages 0 to 6 is generally greater than in the ages 7 to 14, despite the fact that the former consists of only 7 single year age groups as compared with eight in the latter. In the older populations, where fertility and mortality are low, there is much less difference in the number of persons in each successive age group and the age pyramid is steep.

If, instead of comparing different age groups, one compares one country with another within each age group, it is observed that the age groups 0 to 6 and 7 to 14 conform to the same general pattern as the entire group 0 to 19. In Table 6 the 21 countries are divided into four classes according to the observed proportion in all the ages 0 to 19. When the proportion of the population in the ages 0 to 6 is used as the criterion for ordering, all the countries except Puerto Rico fall into the same four classes as when the proportion under 20 was the ordering criterion. Within the group, of course, the ordering is no longer the same. If the same test is applied to the 7 to 14 age group, once again all the countries except one fall into the same four classes. These results confirm our expectation that the proportion of the population in the ages 0 to 19 is generally closely associated with the proportion in both pre-school and elementary school ages. A similar expectation with regard to the age group 15 to 19 is not confirmed, due in part perhaps to the smallness of the spread between the highest and lowest proportions in this age group. Even more important may be faulty age declarations where different patterns of age-heaping in the ages 15 and 20 could distort the data to the point where international comparisons are meaningless.

/Table 6

## Table 6

### PROPORTION OF POPULATION IN AGE GROUPS: 0 TO 6, 7 TO 14 AND 15 TO 19

(The 20 Latin American Republic and Puerto Rico)

| Country a/ (1) | Census year (2) | Proportion of total population in age groups (percentage) | | | |
|---|---|---|---|---|---|
| | | 0-6 (3) | 7-14 (4) | 15-19 (5) | 0-19 (6) |
| Honduras | 1961 | 26.0 | 22.0 | 9.9 | 57.9 |
| Nicaragua | 1963 | 25.5 | 22.8 | 9.6 | 57.9 |
| Costa Rica | 1963 | 25.5 | 22.1 | 9.5 | 57.1 |
| Dominican Republic | 1950 | 23.4 | 21.2 | 10.6 | 55.1 |
| Ecuador | 1962 | 23.6 | 21.5 | 9.7 | 54.8 |
| Mexico | 1960 | 23.0 | 21.4 | 10.2 | 54.6 |
| El Salvador | 1961 | 23.7 | 21.2 | 9.5 | 54.4 |
| Venezuela | 1961 | 24.0 | 20.8 | 9.4 | 54.2 |
| Paraguay | 1950 | 22.5 | 21.3 | 9.7 | 53.5 |
| Guatemala | 1950 | 22.9 | 19.4 | 11.0 | 53.3 |
| Panama | 1960 | 22.8 | 20.4 | 10.0 | 53.2 |
| Peru | 1961 | 23.1 | 20.2 | 9.8 | 53.1 |
| Puerto Rico | 1960 | 20.7 | 21.9 | 10.5 | 53.1 |
| Brazil | 1960 | 22.0 | 20.7 | 10.2 | 52.9 |
| Colombia | 1951 | 22.5 | 20.1 | 10.2 | 52.8 |
| Chile | 1960 | 20.6 | 19.0 | 9.8 | 49.4 |
| Bolivia | 1950 | 21.8 | 17.7 | 9.9 | 49.4 |
| Haiti | 1950 | 17.2 | 20.8 | 10.0 | 48.1 |
| Cuba | 1953 | 17.7 | 18.7 | 9.6 | 46.0 |
| Argentina | 1960 | 15.0 | 15.7 | 8.4 | 39.1 |
| Uruguay | 1963 | 13.7 | 14.2 | 8.0 | 35.9 |

Source: Proportions calculated from data in Appendix.

a/ Countries arranged in order according to the proportion of the population under 20 years of age observed in the census - column (6).

In Table 5 the proportion under 20 in the last two censuses and the change observed for every country with at least two censuses in the past 25 years was shown. Table 7 presents the same data broken down into the three age groups: 0 to 6, 7 to 14 and 15 to 19. As in Table 5 the countries are ordered according to the observed proportion of the population under 20. Most noticeable in Table 7 is the contrast between the eight countries with the youngest populations (in all except one 18/ of which the proportion in the ages 0 to 6 increased more than the group 7 to 14) and the seven countries with the oldest populations (in all except one of which the proportion in the ages 0 to 6 increased less than the age group 7 to 14). If only changing levels of fertility and mortality are taken into consideration, a contrast of this kind is not entirely unexpected. It is understandable that in the constant, high fertility countries, declining mortality should make their young populations even younger; similarly understandable it is that in the countries of low or declining fertility, their older populations should become even older. What makes less sense is that Brazil, Ecuador and Panama should behave according to the pattern of the older populations with declining fertility.19/ The difficulty with trying to explain changes in age structure solely on the basis of changes in fertility and mortality is that it leaves out of the picture any changes in the relative completeness of enumeration in these young ages that may have occurred.

C.  DIFFERENCES BY SEX IN THE POPULATION UNDER 20 YEARS OF AGE

When the proportion of the total population under 20 years of age in each country is studied by sex, it is found, as was to be expected, that almost always the male proportions were somewhat in excess of the female. The differential patterns of migration by sex among persons in their teens which is manifest in internal migration 20/ occurs less frequently in international migration. Sex ratios within the ages under 20 are normally determined almost exclusively by differences in fertility and mortality with regard to sex. Although somewhat more males are born than females (approximately 105 males for every 100 females on the average), male mortality is usually slightly higher at all ages. As a result, the sex ratio gradually reverses itself with increasing age until somewhat more females are found in the older ages. Under age 20, however, the sex ratio should slightly favour males.

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18/    Except only Venezuela where the two age groups both increased by 1.4 percentage points.

19/    The difference in the changes in the two age groups is insignificantly small in some of these countries, especially Panama and Brazil.

20/    See following section.

Table 7

CHANGES IN PROPORTION OF POPULATION IN AGE GROUPS 0 TO 6, 7 TO 14 AND 15 TO 19
ACCORDING TO TWO MOST RECENT CENSUSES IN LAST 25 YEARS

(The Republics of Latin America and Puerto Rico)

| Country | Years of two most recent censuses | Changes in proportion of population in age groups | | |
|---|---|---|---|---|
| | | 0-6 | 7-14 | 15-19 |
| Costa Rica | 1950-1963 | +2.8 | +1.9 | -1.0 |
| Honduras | 1950-1961 | +4.9 | +2.5 | -0.2 |
| El Salvador | 1950-1960 | +2.2 | +1.5 | -1.2 |
| Guatemala | 1940-1950 | +1.2 | -2.5 | +0.6 |
| Venezuela | 1950-1961 | +1.4 | +1.4 | -0.5 |
| Mexico | 1950-1960 | +1.7 | +0.9 | 0.0 |
| Nicaragua | 1950-1963 | +3.5 | +1.5 | -0.8 |
| Peru | 1940-1961 | +1.4 | -0.1 | +0.3 |
| Brazil | 1950-1960 | +0.2 | +0.7 | -0.4 |
| Ecuador | 1950-1962 | +0.7 | +1.8 | -0.2 |
| Panama | 1950-1960 | +0.7 | +0.9 | +0.4 |
| Puerto Rico | 1950-1960 | -1.8 | +1.2 | +0.5 |
| Chile | 1952-1960 | +1.9 | +0.4 | +0.1 |
| Cuba | 1943-1953 | -0.4 | +0.4 | +0.1 |
| Argentina | 1947-1960 | -0.3 | +0.2 | -1.5 |

Source: Changes calculated from data in Appendix.

/There are

There are a few countries in Latin America which have, or have had in the recent past, a larger proportion of females under 20 years of age than males. All of these cases turn out to be the result of adult males immigration which reduced the proportion of males less than 20 years of age, leaving a first impression that there are fewer males than females in these ages. When the sex ratios in terms of males per 100 females are examined in Table 8, there are seen to be more males than females in every country except Chile, where the sex ratio of 99.9 is not deemed to be of sufficient significance to warrant discussion.

## D. DIFFERENCES IN THE DISTRIBUTION OF THE INFANT-YOUTH POPULATION BY URBAN AND RURAL ZONE OF RESIDENCE

In Latin America as in all regions of the world, there is found a greater proportion of young people (especially under age 15) in the rural areas and a greater proportion of adults in the urban areas. 21/ This pattern is evident in Table 9 which shows by sex the proportion of the population under 20 years of age in the urban and rural areas of 16 out of the 21 countries of Latin America. The urban-rural difference is found in all countries except Ecuador; it nevertheless varies widely from country to country, being very small in Peru where only 54.4 per cent of the rural population is under 20 years of age as compared with 52.0 per cent of the urban population and being largest in Cuba where in the 1953 census 54.0 per cent of the rural population were under 20 years of age as against only 39.9 per cent for the urban population.

In most countries the greater youthfulness of the rural population is attributable in part to a higher level of fertility and in part to migration from the rural to the urban areas. 22/ So far as is known, no effort has been made to specify which of these two factors is generally more significant. Higher rural fertility would indeed lead to a younger population with a broader based age pyramid. Although various studies have established fairly conclusively that rural fertility is generally higher than urban fertility, 23/ urban-rural differential fertility is not understood well enough for its effect on urban and rural age structures to be measured with any degree of precision.

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21/ United Nations, 1957 Report on the World Social Situation, United Nations Sales No.: 1957.IV.3, p. 121.

22/ "The Demographic Aspects of Urbanization" in Urbanization in Latin America, Philip Hauser, ed., UNESCO, 1961, p. 111.

23/ Idem. Also Robert O. Carleton, "Fertility Trends and Differentials in Latin America", April 1965 Milbank Memorial Fund Round Table on Components of Population Change in Latin America.

Table 8

SEX RATIOS a/ IN AGE GROUPS 0 TO 19 YEARS

(The 20 Latin American Republics and Puerto Rico)

| Country | Census year | Sex ratio in age group 0 to 19 a/ |
|---|---|---|
| Argentina | 1960 | 101.9 |
| Bolivia | 1950 | 104.9 |
| Brazil | 1960 | 100.7 |
| Colombia | 1951 | 100.7 |
| Costa Rica | 1963 | 100.2 |
| Cuba | 1953 | 101.7 |
| Chile | 1960 | 99.9 |
| Ecuador | 1962 | 104.1 |
| El Salvador | 1961 | 102.3 |
| Guatemala | 1950 | 104.0 |
| Haiti | 1950 | 100.6 |
| Honduras | 1961 | 101.6 |
| Mexico | 1960 | 102.6 |
| Nicaragua | 1963 | 101.6 |
| Panama | 1960 | 102.1 |
| Paraguay | 1950 | 103.0 |
| Peru | 1961 | 102.8 |
| Dominican Republic | 1960 | 102.0 |
| Uruguay | 1963 | 103.4 |
| Venezuela | 1961 | 103.2 |
| Puerto Rico | 1960 | 101.7 |

Source: Sex ratios calculated from data in Appendix.

a/ Males per 100 females.

Table 9

PROPORTION OF POPULATION UNDER 20 YEARS OF AGE BY ZONE OF RESIDENCE AND SEX

(The Republics of Latin America and Puerto Rico)

| Country a/ | Census year | Proportion of population under 20 years | | | | | |
|---|---|---|---|---|---|---|---|
| | | Urban | | | Rural | | |
| | | Total | Male | Female | Total | Male | Female |
| Nicaragua | 1950 | 50.5 | 54.5 | 47.4 | 55.4 | 55.6 | 55.2 |
| | 1963 | 55.8 | 59.0 | 53.1 | 59.4 | 59.1 | 59.5 |
| Costa Rica | 1950 | 47.8 | 49.9 | 46.0 | 56.2 | 55.4 | 57.1 |
| | 1963 | 53.6 | 55.3 | 51.9 | 59.5 | 58.5 | 60.5 |
| Dominican Republic | 1950 | 48.7 | 49.7 | 47.7 | 57.1 | 55.8 | 58.5 |
| Ecuador | 1962 | 54.6 | 56.0 | 53.3 | 54.9 | 55.4 | 54.3 |
| Mexico | 1960 | 53.2 | 54.7 | 51.7 | 56.0 | 56.1 | 55.7 |
| El Salvador | 1950 | 47.7 | 50.1 | 45.5 | 54.2 | 54.5 | 54.1 |
| | 1961 | 51.3 | 54.5 | 48.6 | 56.3 | 56.4 | 56.1 |
| Venezuela | 1950 | 49.0 | 49.2 | 48.8 | 55.2 | 55.5 | 54.8 |
| Guatemala | 1950 | 48.5 | 49.8 | 47.1 | 54.9 | 55.0 | 54.8 |
| Panama | 1940 | 40.7 | 39.5 | 42.2 | 54.4 | 53.3 | 55.5 |
| | 1950 | 46.5 | 46.8 | 46.2 | 56.9 | 55.5 | 58.2 |
| | 1960 | 48.8 | 49.5 | 48.2 | 56.6 | 55.2 | 58.3 |
| Peru | 1961 | 52.0 | 52.6 | 51.4 | 54.2 | 55.7 | 52.9 |
| Puerto Rico | 1940 | 45.9 | 47.3 | 44.6 | 54.2 | 53.3 | 55.2 |
| | 1950 | 47.6 | 48.9 | 46.6 | 56.9 | 56.4 | 57.6 |
| | 1960 | 47.9 | 49.7 | 46.3 | 57.5 | 57.6 | 57.1 |
| Brazil | 1950 | 47.0 | 48.7 | 45.2 | 56.1 | 55.7 | 56.5 |
| | 1960 | 48.7 | 49.4 | 47.9 | 56.5 | 56.2 | 56.9 |
| Chile | 1952 | 43.9 | 45.7 | 42.3 | 51.7 | 51.1 | 52.4 |
| | 1960 | 47.6 | 49.5 | 45.9 | 53.4 | 52.3 | 54.8 |
| Cuba | 1953 | 39.9 | 40.2 | 39.5 | 54.0 | 51.3 | 57.2 |
| Argentina | 1947 | 35.9 | 35.9 | 35.9 | 48.9 | 46.6 | 51.6 |
| Uruguay | 1963 | 35.1 | 36.3 | 34.0 | 40.1 | 38.3 | 42.6 |

Source: Proportion calculated from data in Appendix.

a/ Countries arranged in order according to the proportion of the population under 20 years of age observed in the last census.

/Similarly, data

Similarly, data on rural to urban migration is usually obtained by indirect measures 24/ which are too crude to do more than describe the general pattern of rural to urban migration, i.e., broad differences by age and sex. These studies show that migration begins in the very youngest working ages, that female migration usually begins younger than male migration, that the migration almost always consists of more females than males, that it tapers off after age 25 and is very small among people over 35 years of age. 25/

The effect of the predominance of women among the rural-to-urban migrants is seen by comparing in Table 9 the proportion of males and females under age 20 in the urban and rural populations. While in all cases the rural populations are younger in the sense of having both more males and more females under 20, in all except two countries (Peru and Venezuela) the greater youthfulness of the rural as compared with the urban populations is more pronounced among females than among males. For example, according to the 1963 census of Costa Rica, the proportion of the population under 20 among males is very similar in the urban and rural populations: the rural males with 58.5 per cent under 20 are only slightly younger than the urban males (55.3 per cent). Among females the difference is much greater – 60.5 per cent vs. 51.9 per cent. This difference can safely be attributed principally to migration. The rural female population is so much younger than the urban female population because the rural exodus of females has severely depopulated the adult female population in the rural areas and swollen the adult female population in the urban areas. It is the migration in the adult ages that causes rural females under 20 to be so much more numerous with respect to the total rural female population than urban females under 20 are with respect to the total urban female population. There is no likelihood that fertility could account for such significant differences in age structure by sex.

The effect of migration in depleting the rural population of its youths and adolescents is very evident in Table 10 which shows in each area the proportion of all persons under 20 in each of the three age groups: 0 to 6, 7 to 14 and 15 to 19. The data covers 24 censuses going

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24/     For various reasons, direct census data on rural emigration ordinarily lacks reliability. There is a tendency for rural emigrants to report a nearby, easily identifiable urban place as their previous place of residence. Ambiguity is introduced also by the fact that places that were rural at the time of migration may at the time of the census have become urban.

25/     cf. Juan Carlos Elizaga, "Internal Migration in Latin America" April 1965 Milbank Memorial Fund Round Table on Components of Population Change in Latin America.

Table 10

PROPORTION OF POPULATION UNDER 20 YEARS OF AGE IN AGE GROUPS: 0 TO 6, 7 TO 14 AND 15 TO 19,
BY ZONE OF RESIDENCE

(The Republics of Latin America and Puerto Rico)

| Country a/ | Census year | Proportion of population under 20 years | | | | | |
| | | In ages 0-6 | | In ages 7-14 | | In ages 15-19 | |
| | | Urban | Rural | Urban | Rural | Urban | Rural |
| Nicaragua | 1950 | 41.0 | 41.5 | 37.8 | 39.9 | 21.2 | 18.6 |
| | 1963 | 42.7 | 44.9 | 39.8 | 39.1 | 17.5 | 16.0 |
| Costa Rica | 1950 | 40.8 | 43.4 | 37.2 | 37.9 | 22.0 | 18.7 |
| | 1963 | 42.5 | 45.9 | 39.0 | 38.7 | 18.5 | 15.5 |
| Dominican Republic | 1950 | 40.0 | 43.1 | 36.6 | 38.9 | 23.4 | 18.0 |
| Ecuador | 1962 | 41.2 | 44.1 | 39.7 | 39.0 | 19.1 | 16.9 |
| Mexico | 1960 | 46.2 | 45.2 | 34.8 | 36.6 | 19.0 | 18.2 |
| El Salvador | 1950 | 39.8 | 42.3 | 37.7 | 38.0 | 22.5 | 19.7 |
| | 1961 | 42.1 | 44.4 | 38.6 | 39.1 | 19.3 | 16.5 |
| Venezuela | 1950 | 43.6 | 43.6 | 36.0 | 38.8 | 20.4 | 17.6 |
| Guatemala | 1950 | 41.6 | 43.2 | 35.7 | 36.7 | 22.7 | 20.1 |
| Panama | 1940 | 36.9 | 42.5 | 37.8 | 39.3 | 25.3 | 18.3 |
| | 1950 | 46.2 | 47.6 | 33.7 | 36.0 | 20.1 | 16.4 |
| | 1960 | 40.6 | 44.2 | 37.7 | 38.9 | 21.7 | 16.9 |
| Peru | 1961 | 41.1 | 45.6 | 38.3 | 37.8 | 20.6 | 16.6 |
| Puerto Rico | 1940 | 36.2 | 41.2 | 38.1 | 39.1 | 25.7 | 19.7 |
| | 1950 | 42.0 | 43.1 | 37.2 | 39.4 | 20.8 | 17.5 |
| | 1960 | 38.6 | 39.3 | 40.5 | 41.7 | 20.9 | 19.0 |
| Brazil | 1950 | 39.4 | 42.6 | 38.1 | 38.7 | 22.5 | 18.7 |
| | 1960 | 40.9 | 42.3 | 39.0 | 39.1 | 20.1 | 18.6 |
| Chile | 1952 | 39.2 | 40.4 | 39.0 | 40.4 | 21.8 | 19.1 |
| | 1960 | 41.4 | 42.3 | 37.8 | 39.5 | 20.8 | 18.2 |
| Cuba | 1953 | 37.1 | 40.2 | 40.4 | 40.7 | 22.5 | 19.1 |
| Uruguay | 1963 | 38.2 | 37.9 | 39.3 | 40.4 | 22.5 | 21.7 |

Source: Proportion calculated from data in Appendix.

a/ Countries arranged in order according to the proportion of the population under 20 years of age observed in the last census.

back as far as 1940 for 15 countries. In every one of the 24 censuses without exception the proportion in the ages 15 to 19 is less in the rural area. The infant-youth population of the rural areas is predominantly in the pre-school and elementary school ages. In the last census of eight of the fifteen countries the rural area has a greater proportion in both the pre-school and elementary school ages than the urban area. The contrast is especially marked with regard to the pre-school ages where the rural area has a greater proportion in all except three countries. 26/ Although the rural area also has a greater proportion than the urban area in the elementary school age group in all except four countries, urban-rural differences with regard to this age group are usually not very large. In general, both areas have approximately the same proportion of their infant-youth population in the elementary school ages.

Were it not for migration, the rural area would have more and the urban area less of its population in this 7 to 14 year age group. That there is more migration in this age group among females than males becomes clear from the data in Table 11 which shows by sex the ratio of the 0 to 6 age group to the 7 to 14 age group in both the urban and the rural area. Heavier female than male migration should have the result of making the female ratio larger than the male ratio in the rural area (by reducing more the size of the denominator in the female ratio) and smaller in the urban area. This pattern is in fact found in 18 of the 24 censuses; in the case of all 27/ the exceptions the female ratio either is significantly smaller 28/ in the urban area (but about the same as the male ratio in the rural area) or significantly greater 29/in the rural area (but about the same in the urban area). It should be noted that evidence of this kind indicates nothing about the volume of male migration, if any, in the ages 7 to 14; it merely establishes that female migration has been greater at least in most, if not in all, the sixteen countries for which information is available. This conclusion, of course, is reflected in differential urban and rural sex ratios in the elementary school age, as shown in Table 12.

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26/    In none of these three is the rural proportion significantly less than the urban proportion; in one case, Venezuela, the proportion is the same in both areas.

27/    These differences in male and female age structure in the urban and rural areas may, in some of the marginal cases, it is true, be due to differential faulty age declaration by se  in addition to or instead of greater female migration. If differential migration by sex were the only factor present in the situation, both the urban and rural age structures should be affected.

28/    i.e., Brazil 1960, Costa Rica 1963 and Chile 1960.

29/    i.e., El Salvador 1961, Guatemala 1950 and Peru 1961.

Table 11

PERSONS IN AGES 0 TO 6 FOR EVERY 100 PERSONS IN AGES 7 TO 14 BY ZONE OF RESIDENCE AND SEX

(The Republics of Latin America and Puerto Rico)

| Country a/ | Census year | Persons 0-6 for every 100 persons 7-14 | | | | | |
|---|---|---|---|---|---|---|---|
| | | Urban | | | Rural | | |
| | | Total | Male | Female | Total | Male | Female |
| Nicaragua | 1950 | 1.08 | 1.12 | 1.05 | 1.04 | 1.00 | 1.09 |
| | 1963 | 1.07 | 1.09 | 1.05 | 1.15 | 1.12 | 1.18 |
| Costa Rica | 1950 | 1.10 | 1.13 | 1.08 | 1.15 | 1.13 | 1.14 |
| | 1963 | 1.09 | 1.11 | 1.08 | 1.19 | 1.19 | 1.19 |
| Dominican Republic | 1950 | 1.10 | 1.15 | 1.04 | 1.11 | 1.08 | 1.14 |
| Ecuador | 1962 | 1.04 | 1.06 | 1.02 | 1.13 | 1.10 | 1.16 |
| Mexico | 1960 | 1.33 | 1.34 | 1.31 | 1.24 | 1.21 | 1.26 |
| El Salvador | 1950 | 1.06 | 1.09 | 1.04 | 1.11 | 1.07 | 1.14 |
| | 1961 | 1.09 | 1.09 | 1.09 | 1.14 | 1.11 | 1.17 |
| Venezuela | 1950 | 1.22 | 1.23 | 1.20 | 1.13 | 1.09 | 1.18 |
| Guatemala | 1950 | 1.17 | 1.17 | 1.17 | 1.19 | 1.16 | 1.21 |
| Panama | 1940 | 0.98 | 1.00 | 0.96 | 1.08 | 1.05 | 1.12 |
| | 1950 | 1.37 | 1.35 | 1.32 | 1.32 | 1.29 | 1.36 |
| | 1960 | 1.07 | 1.10 | 1.04 | 1.14 | 1.12 | 1.17 |
| Peru | 1961 | 1.08 | 1.08 | 1.09 | 1.21 | 1.17 | 1.25 |
| Puerto Rico | 1940 | 0.95 | 1.02 | 0.88 | 1.05 | 1.05 | 1.06 |
| | 1950 | 1.13 | 1.16 | 1.11 | 1.09 | 1.07 | 1.12 |
| | 1960 | 0.95 | 0.96 | 0.94 | 0.94 | 0.94 | 0.95 |
| Brazil | 1950 | 1.03 | 1.05 | 1.01 | 1.10 | 1.09 | 1.11 |
| | 1960 | 1.05 | 1.08 | 1.02 | 1.08 | 1.08 | 1.08 |
| Chile | 1952 | 1.00 | 1.03 | 0.98 | 1.00 | 0.98 | 1.03 |
| | 1960 | 1.09 | 1.11 | 1.08 | 1.07 | 1.04 | 1.02 |
| Cuba | 1953 | 0.91 | 0.93 | 0.90 | 0.98 | 0.97 | 0.99 |
| Uruguay | 1963 | 0.97 | 0.99 | 0.95 | 0.94 | 0.89 | 0.99 |

Source: Proportion calculated from data in Appendix.

a/ Countries arranged in order according to the proportion of the population under 20 years of age observed in the last census.

Table 12

SEX RATIOS [a/] IN AGE GROUP 7 TO 14 BY ZONE OF RESIDENCE

(The Republic of Latin America and Puerto Rico)

| Country [b/] | Census year | Sex ratio in age group 7 to 14 [a/] | |
|---|---|---|---|
| | | Urban | Rural |
| Nicaragua | 1963 | 96.9 | 109.7 |
| Costa Rica | 1963 | 97.9 | 101.9 |
| Dominican Republic | 1950 | 90.7 | 108.2 |
| Ecuador | 1962 | 98.8 | 111.0 |
| Mexico | 1960 | 101.0 | 108.4 |
| El Salvador | 1961 | 102.0 | 108.5 |
| Venezuela | 1950 | 102.0 | 112.7 |
| Guatemala | 1950 | 102.4 | 109.8 |
| Panama | 1960 | 97.1 | 107.7 |
| Peru | 1961 | 102.2 | 107.2 |
| Puerto Rico | 1960 | 100.3 | 104.0 |
| Brazil | 1960 | 95.6 | 105.4 |
| Chile | 1960 | 97.2 | 108.3 |
| Cuba | 1953 | 100.4 | 107.7 |
| Uruguay | 1963 | 99.7 | 122.8 |

Source: Proportion calculated from data in Appendix.

a/ Males per 100 females.

b/ Countries arranged in order according to the proportion of the population under 20 years of age observed in the last census.

Part II

## THE ILLUSTRATIVE USE OF FAMILY CHARACTERISTICS
## OF INFANTS AND YOUTHS

The data that have been drawn upon up to this point have described the demographic situation of infants and youths in Latin America merely in terms of individual - as the number of individuals in such and such an age group as compared with the number of individuals in other age groups. Little other information is available from conventional methods of tabulating census data. Although in a census of population all the members of a family are enumerated on the same census schedule, it was not readily feasible with pre-electronic tabulating equipment to produce data on the characteristics of families.

The use of the computer, however, makes it realistically possible to characterize families into significant types, such as husband-wife families compared with various kinds of "broken families", low income compared with high family income, families in which the nuclear family lives alone by itself compared with those in which it lives with other relatives or with non-relatives, families with unemployed members, families without economically active members, families according to the educational level of the parents, families according to the age of the head, etc. All these items of information about the family are already available on the census schedule or are readily obtainable. Family characteristics of this kind can be used not only to study statistically the family structure of a country (i.e., to learn how many of each kind of family a country has), but also to explore the family background of a number of important subjects such as: school attendance, public welfare, large-children families, unemployment, etc.

The governments of two countries, Chile and Puerto Rico, have programme for tabulating data on family characteristics from their last census. To illustrate the importance of this kind of data, several tables that have become available from the Puerto Rican programme are presented for discussion in this Part.1/

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1/    In both countries the programme of family tabulations is still in process and only partial results could be obtained at this time. The Puerto Rican programme is extremely ambitious with over 500 tabulations projected. Tables from the Puerto Rican programme have been selected for review here because they cover the entire population, whereas the tables which have been made available for Chile refer only to Greater Santiago. The Chilean programme comprises 14 tables, two of which provide family information on the younger ages: economically active heads of families (a) by branch of economic activity and age of single and non-single children and (b) by major occupation group and age of single and non-single children.

One of these tables which should be of special interest to this Seminar describes the different kinds of families according to the number of own children under 18 years of age in the family. With the data in this table something can be learned about the characteristics of the large-children family as compared with other families. In this table the most important family type, the primary family, 2/ has been cross-tabulated by family income (two approximately equal family income groups based on family income during the year prior to the census - a lower income group with 1959 family income less than 1,500 dollars and an upper group with family income of 1,500 dollars or more) and by three main structural categories (husband-wife families, other families with male head, and other families with female head). These two kinds of non-husband-wife families evidently comprise the two most significant variations of the broken family. The husband-wife family has in turn been divided on the basis of whether the head is less than 65 years old - obviously because age 65 symbolizes the age of retirement when earning ability is reduced and the capacity for bringing up children is perhaps significantly different. Because conditions for rearing children are so different in the city and on the farm, the husband-wife family whose head is under 65 has been further subdivided according to whether or not the head is employed in agriculture.

In Table 13 the results have been presented as the total number of primary families, the total number of "large-children families" - defined in this instance as families with four or more own children under 18 - and the percentage distribution of each into the different family types just outlined. Columns (2) and (3) of Table 13 show the situation for all families without regard to family income. 3/ Most striking here is the fact

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2/   A primary family is a family whose head is also the head of the household. The definition acquires importance only in case two or more non-related families live in the same dwelling-unit. The head of only one of these families is the head of the household; the other families are designated secondary families. All families which are the only family in a dwelling-unit are automatically primary families.

3/   The data excludes information on 16 per cent of all families who did not report family income. From other tables it can be seen that this group of families is a very low income group of a special kind. The average age of head is 57 years (compared with 44 years for all families), the educational level of the head is much lower than that of either of the two income groups (41 per cent without any education as compared with 24 per cent in families with less than 1,500 dollars income and 8 per cent families with income of 1,500 dollars or more), and the head is almost always economically inactive. Despite their obviously low income, this group of 16 per cent of all families has slightly less than 12 per cent of families with four or more children.

Table 13

FAMILIES WITH 4 OR MORE CHILDREN BY STRUCTURAL FAMILY TYPE AND 1959 FAMILY INCOME,
PUERTO RICO, 1960

| Structural family type (1) | Families with income not reported | | Families with 1959 income $ 1 500 or more | | Families with 1959 income less than $ 1 500 | |
|---|---|---|---|---|---|---|
| | All families (2) | Families with 4 or more children (3) | All families (4) | Families with 4 or more children (5) | All families (6) | Families with 4 or more children (7) |
| Number of families | 377 980 | 101 680 | 181 656 | 36 672 | 196 324 | 65 008 |
| Percentage of total | 100.0 | 100.0 | 48.1 | 36.1 | 51.9 | 63.9 |
| I. Husband wife families | 84.8 | 92.1 | 42.8 | 34.5 | 42.0 | 57.6 |
| A. Head under 65 years old | 78.5 | 90.3 | 40.2 | 33.9 | 38.3 | 56.4 |
| 1. Employed in agriculture | 20.5 | 33.2 | 3.9 | 5.0 | 16.6 | 28.2 |
| 2. Not employed in agriculture | 58.0 | 57.1 | 36.3 | 28.9 | 21.7 | 28.2 |
| B. Head age 65 years old and over | 6.3 | 1.8 | 2.6 | 0.6 | 3.7 | 1.2 |
| II. Other families with male head | 4.8 | 1.9 | 1.9 | 0.6 | 2.9 | 1.3 |
| III. Other families with female head | 10.4 | 6.0 | 3.4 | 1.0 | 7.0 | 5.0 |

Source: Puerto Rico Census of Population and Housing, 1960. Family Card Special Tabulation, Puerto Rico
Planning Board, Bureau of Social and Economic Analysis, Office of the Census.

/that the

that the families most qualified to have large families are precisely the ones which most have large families. Husband-wife families with head under 65 have 90 per cent of all four or more children families, even though as a group this type of family comprises only 78 per cent of all families. The broken and older families which comprise together 21 per cent of all families have only 10 per cent of all such large-children families.: It should be noted, however, that the disproportionate concentration of large-children families in husband-wife families with head under 65 is located entirely in farm families where educational and employment opportunities are inferior and exposure to factors motivating migration are greater.

In columns (4) to (7) the pattern can be studied by family income. It is seen that in both the lower and upper income families the broken and older families have proportionately fewer large-children families. However, although husband-wife families in agriculture have proportionately more large families in the upper as well as in the lower income brackets, approximately 85 per cent of these large-children families in agriculture are in the lower income group due to the fact that very few agricultural families (whether large or small) are in the upper family income group. Furthermore, although husband-wife families in the dynamic non-agricultural sector have precisely their proportionate share of large-children families, the breakdown by family income reveals the upper income families to be having decidedly less (and the lower income families proportionately more).

Data is also available on school attendance and school retardation in the ages 6 to 11 by certain family characteristics. In one table these characteristics are 1959 family earner status (no earners in the family in the year before the census, only part-year earners, one full-year earner, and two or more full year earners) cross-tabulated by the same two high and low family income groups as in Table 13. The data in this instance are confined to only one of the structural family types (albeit the most numerous) in Table 13 - husband-wife families with head under 65 and not employed in agriculture. Of the approximately 220,000 families in this category, about 110,000 had children in the ages 6 to 11. Table 14 distributes the families in each family earner status into three school performance groups: (a) families in which one or more children in the ages 6 to 11 were not attending school 4/ (b) families

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4/    The school attendance figures are misleadingly low because of the fact that only about half the children who entered school in Puerto Rico did so by age 6. The 1960 census shows 46 per cent of children age 6 attending school, 74 per cent of children age 7, 83 per cent at age 8, 85 per cent at age 9 and 91 per cent at age 10; after age 10 the attendance rates begin to decline.

Table 14

SCHOOL PERFOMANCE BY 1959 FAMILY EARNER STATUS AND 1959 FAMILY INCOME, PUERTO RICO, 1960
HUSBAND-WIFE FAMILIES WITH CHILDREN IN AGES 6 TO 11 AND WITH HEAD UNDER 65 YEARS
AND NOT EMPLOYED IN AGRICULTURE

| 1959 Family earner status | Total families | | 1 or more children not attending school | All children attending school | |
|---|---|---|---|---|---|
| | Number | Percent | | 1 or more retarded children | No retarded children |
| **Families with children age 6 to 11 and reporting 1959 income** | | | | | |
| All families | 109 824 | 100.0 | 10.3 | 11.6 | 78.1 |
| No earners | 4 672 | 100.0 | 16.2 | 19.4 | 64.4 |
| Only part-year earners | 14 148 | 100.0 | 12.9 | 16.4 | 70.7 |
| 1 full-year earner | 61 912 | 100.0 | 9.7 | 11.2 | 79.1 |
| 2 or more full-year earners | 29 092 | 100.0 | 9.5 | 8.9 | 81.6 |
| **Families with 1959 income $ 1 500 or more** | | | | | |
| All families | 65 220 | 100.0 | 8.6 | 8.4 | 83.0 |
| No earners | 376 | 100.0 | 12.8 | 8.5 | 78.7 |
| Only part-year earners | 2 624 | 100.0 | 12.2 | 11.1 | 76.7 |
| 1 full-year earner | 37 456 | 100.0 | 8.3 | 8.6 | 83.1 |
| 2 or more full-year earners | 24 764 | 100.0 | 8.7 | 7.6 | 83.7 |
| **Families with 1959 income less than $ 1 500** | | | | | |
| All families | 44 604 | 100.0 | 12.8 | 16.5 | 70.7 |
| No earners | 4 296 | 100.0 | 16.5 | 20.4 | 63.1 |
| Only part-year earners | 11 524 | 100.0 | 13.0 | 17.7 | 69.3 |
| 1 full-year earner | 24 456 | 100.0 | 11.9 | 15.2 | 72.9 |
| 2 or more full-year earners | 4 328 | 100.0 | 13.8 | 16.4 | 69.8 |

Source: Puerto Rico Census of Population and Housing, 1960. Family Card Special Tabulation, Puerto Rico
Planning Board, Bureau of Social and Economic Analysis, Office of the Census.

/in which

in which the grade level of one or more children in the ages 6 to 11 was retarded 5/ even though all children were attending school, and (c) families in which all children in the ages 6 to 11 were attending school and none were retarded.

In the upper tier of Table 14 the lower and upper family income groups are combined. As might be expected, perfomance with regard to both attendance and retardation is poorest in families with no earners (only 64 per cent of no earner families were families with all children attending and none retarded) and improves steadily (both in attendance and retardation) with improvement in family earner status. The only surprising feature, perhaps, is that school perfomance is best of all in the important category of two or more full-year earners (over 25 per cent of all families) in which 82 per cent of the families are found to have all children attending and none retarded. Presumably both husband and wife are working in these families - circumstances under which one would think adequate attention might not always be given to the education of the children.

In the middle and lower tier of Table 14 the situation is presented for the upper and lower family income groups. Two interesting observations are pertinent. First, it is evident that family earner status affects school perfomance principally through its effect on family income. Even when only two family income groups are used (so that much difference of income remains within each income group), the difference between maximum and minimum school performance (i.e., in terms of proportion of families with all children attending school and none retarded) by family earner status is substantially reduced: the range from 64 per cent when (family income is not taken into consideration) becomes 77 per cent 6/ to 84 per cent and 63 per cent to 73 per cent for the higher and lower income groups respectively. The difference between all upper and all lower income families (83 per cent and 71 per cent) is greater than the greatest difference by earner status within either family income group.

Secondly, the superior performance of families with two or more full-year earners largely disappears when the relationship is controlled by family income. In the lower income families where the presence of two full-year earners is more apt to signify distress or dire necessity (i.e. necessarily without regard for the consequences for the children) than a free, deliberate decision to enable the family to live more

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5/  School retardation is defined as below the model grade for each age. More precise details of this definition were not available at the time this document was prepared.

6/  Omitting the no earner category because of the small number of cases in the higher income group.

comfortably, the relationship is actually reversed. The two or more full-year earner families have a poorer school performance record than families with only one full-year earner (70 per cent as compared with 73 per cent of the families with all children attending and none retarded). Among the upper income families the difference between these two earner categories is negligeable.

In Table 15 school attendance and school retardation are studied by structural family type instead of by family earner status. In this table the husband-wife families investigated in Table 14 are shown in item I A2 as one of several different family types. In the upper tier of Table 15 it can be seen that these husband-wife families of Table 14 have a better school performance than any of the other types of family (78 per cent of families with all children attending school and none retarded as compared with 73 per cent for the average of all families). Noteworthy in this table is (a) the sharp contrast in performance between husband-wife families according to whether or not the head is employed in agriculture; this contrast is less marked with respect to school attendance (despite the notoriously greater insufficiency of rural schools) than with regard to retardation, and (b) the surprisingly good school performance of broken families with a female head (virtually as good as husband-wife families not in agriculture); presumably most families with a female head would be urban families and have greater access to more and better school facilities.

When, however, the data are examined by family income in the middle and lower tiers of Table 15, it is seen that the female head families have now unaccountably emerged with the best school performance in each family income group - better even than the husband-wife family with head under 65 and not employed in agriculture. This superiority is more marked among lower than among higher income families.

Another feature of Table 15 that merits attention is the fact that differences in school performance by structural family type do not (as they did with family earner status) lose importance when controlled by family income. The difference between average school performance of upper and lower income families (82 per cent compared with 67 per cent) is of the same magnitude as that between (a) families with female heads and (b) husband-wife families with head under 65 and employed in agriculture in both upper income families (84 per cent compared with 72 per cent) and lower income families (75 per cent compared with 60 per cent).

One further word needs be said about the illustrative family data that have been described here. Although they provide information of a richness in detail to which we are not accustomed, they are nonetheless inadequate; more detailed tabulations are required. After studying the present data, it is possible to make some specific recommendations for future tabulation programmes.

Table 15

SCHOOL PERFOMANCE BY STRUCTURAL FAMILY TYPE AND 1959 FAMILY INCOME, PUERTO RICO, 1960
FAMILIES WITH CHILDREN IN AGES 6 TO 11

| Structural family type | Total families | | 1 or more children not attending school | All children attending school | |
|---|---|---|---|---|---|
| | Number | Percent | | 1 or more retarded children | No retarded children |
| **Families with children age 6 to 11 and reporting 1959 income** | | | | | |
| All families | 189 556 | 100.0 | 12.2 | 14.3 | 73.5 |
| I. Husband-wife families | 165 508 | 100.0 | 12.2 | 14.6 | 73.2 |
| A. Head under 65 years old | 157 724 | 100.0 | 12.2 | 14.6 | 73.2 |
| 1. Employed in agriculture | 47 900 | 100.0 | 16.5 | 21.3 | 62.2 |
| 2. Not employed in agriculture | 109 824 | 100.0 | 10.3 | 11.6 | 78.1 |
| B. Head age 65 years old and over | 7 784 | 100.0 | 11.3 | 15.5 | 73.2 |
| II. Other families with male head | 6 120 | 100.0 | 14.8 | 15.5 | 69.7 |
| III. Other families with female head | 17 928 | 100.0 | 11.6 | 11.4 | 77.1 |
| **Families with 1959 income $ 1 500 or more** | | | | | |
| All families | 83 664 | 100.0 | 9.1 | 9.2 | 81.7 |
| I. Husband-wife families | 76 776 | 100.0 | 9.1 | 9.3 | 81.6 |
| A. Head under 65 years old | 73 748 | 100.0 | 9.1 | 9.2 | 81.7 |
| 1. Employed in agriculture | 8 528 | 100.0 | 12.2 | 16.1 | 71.7 |
| 2. Not employed in agriculture | 65 220 | 100.0 | 8.6 | 8.4 | 83.0 |
| B. Head age 65 years old and over | 3 028 | 100.0 | 9.4 | 10.7 | 79.9 |
| II. Other families with male head | 2 236 | 100.0 | 11.1 | 10.4 | 78.5 |
| III. Other families with female head | 4 652 | 100.0 | 9.6 | 6.4 | 84.0 |
| **Families with 1959 income less than $ 1 500** | | | | | |
| All families | 105 892 | 100.0 | 14.6 | 18.4 | 67.0 |
| I. Husband-wife families | 88 732 | 100.0 | 14.9 | 19.2 | 65.9 |
| A. Head under 65 years old | 83 976 | 100.0 | 15.0 | 19.2 | 65.8 |
| 1. Employed in agriculture | 39 372 | 100.0 | 17.5 | 22.4 | 60.1 |
| 2. Not employed in agriculture | 44 604 | 100.0 | 12.8 | 16.5 | 70.7 |
| B. Head age 65 years old and over | 4 756 | 100.0 | 12.5 | 18.5 | 69.0 |
| II. Other families with male head | 3 884 | 100.0 | 16.9 | 18.5 | 64.6 |
| III. Other families with female head | 13 276 | 100.0 | 12.2 | 13.2 | 74.6 |

Source: Puerto Rico Census of Population and Housing, 1960. Family Card Special Tabulation, Puerto Rico
Planning Board, Bureau of Social and Economic Analysis, Office of the Census.

First, the data on number of children in the family needs to be cross-tabulated with the school performance data. One wants to be able to compare the school performance of families according to the number of children in the family. This comparison should be explored both with regard to all children in the families (whether in the school ages under study or not) as well as with regard to children in certain specified school ages. Furthermore, the data should be tabulated in such a way that the numbers of children retarded or not attending school is not lost sight of as is the case in the present tables where all families (regardless of the number of their children of school age) are given equal weight.

Secondly, there are other family characteristics whose possible significance for school performance of children should be investigated. Two such characteristics are educational level of parents and age of parents, e.g., older parents belong to a different generation than younger parents and their attitudes and behavior with reference to the education of children may well be different also. Information of this kind is basic census data appearing on the census schedules of almost all countries. If the importance of family tabulations using this kind of information is recognized and census offices are made aware of a demand for them, there should be no serious obstacles in the way of making them available.

## Appendix

### POPULATION UNDER 20 YEARS OF AGE, BY SELECTED AGE GROUPS, URBAN AND RURAL

#### (The Latin American Republics and Puerto Rico)

| Age | Total | | | Urban | | | Rural | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Male | Female | Total | Male | Female | Total | Male | Female |
| **Argentina 1947 */** | | | | | | | | | |
| Total population | 15 828.8 | 8 118.2 | 7 710.6 | 9 903.5 | 4 886.6 | 5 016.9 | 5 925.5 | 3 231.6 | 2 693.9 |
| 0-19 | 6 454.2 | 3 261.3 | 3 192.9 | 3 556.3 | 1 754.5 | 1 801.8 | 3 877.9 | 1 506.7 | 1 391.2 |
| 0- 6 | 2 427.2 | 1 228.2 | 1 199.0 | | | | | | |
| 7-14 | 2 457.2 | 1 244.0 | 1 213.2 | | | | | | |
| 15-19 | 1 569.8 | 789.1 | 780.7 | | | | | | |
| **Argentina 1960 */** | | | | | | | | | |
| Total population | 20 008.9 | 10 034.5 | 9 974.4 | | | | | | |
| 0-19 | 7 815.6 | 3 944.9 | 3 870.7 | | | | | | |
| 0- 6 | 2 998.6 | 1 521.6 | 1 477.0 | | | | | | |
| 7-14 | 3 138.1 | 1 606.2 | 1 531.9 | | | | | | |
| 15-19 | 1 678.9 | 817.1 | 861.8 | | | | | | |
| **Bolivia 1950 */** | | | | | | | | | |
| Total population | 2 704.0 | 1 326.1 | 1 377.9 | | | | | | |
| 0-19 | 1 338.9 | 685.5 | 653.4 | | | | | | |
| 0- 6 | 590.8 | 299.2 | 291.6 | | | | | | |
| 7-14 | 480.1 | 251.3 | 228.8 | | | | | | |
| 15-19 | 268.0 | 135.0 | 133.0 | | | | | | |
| **Brazil 1940 */** | | | | | | | | | |
| Total population | 41 204.1 | 20 599.5 | 20 604.6 | | | | | | |
| 0-19 | 21 970.5 | 11 019.4 | 10 951.1 | | | | | | |
| 0- 6 | 8 795.2 | 4 451.5 | 4 343.6 | | | | | | |
| 7-14 | 8 731.4 | 4 410.3 | 4 321.2 | | | | | | |
| 15-19 | 4 443.9 | 2 157.6 | 2 286.3 | | | | | | |

Sources: Argentina 1947: Dirección General del Servicio Estadístico; Argentina 1960: Zulma C. Camisa, República Argentina: Evaluación y ajuste del Censo de Población de 1960 por sexo y edad y tabla abreviada de mortalidad 1959-1961, pág. 37, cuadro 11.

Bolivia 1950: Censo de Población, 1950. Dirección General de Estadística y Censos, República de Bolivia.

Brazil 1940: Demographic Yearbook, 1949-1950.

*/ Because of the unavailability of data by single years of age, the age groups 0 to 6 and 7 to 14 were obtained by interpolation, using Sprague Multipliers.

Appendix (cont. 1)

| Age | Total | | | Urban | | | Rural | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Male | Female | Total | Male | Female | Total | Male | Female |

### Brazil 1950 */

| Age | Total | Male | Female | Total | Male | Female | Total | Male | Female |
|---|---|---|---|---|---|---|---|---|---|
| Total population | 51 827.8 | 25 831.3 | 25 996.5 | 19 050.8 | 9 264.7 | 9 785.1 | 33 089.9 | 16 879.9 | 16 210.0 |
| 0-19 | 27 197.3 | 13 606.0 | 13 591.3 | 8 932.4 | 4 509.8 | 4 422.6 | 18 578.3 | 9 409.6 | 9 168.7 |
| 0- 6 | 11 286.7 | 5 716.7 | 5 570.1 | 3 517.2 | 1 841.2 | 1 676.0 | 7 913.4 | 4 019.4 | 3 894.0 |
| 7-14 | 10 408.3 | 5 244.8 | 5 163.4 | 3 400.8 | 1 746.7 | 1 654.1 | 7 177.0 | 3 667.6 | 3 509.4 |
| 15-19 | 5 502.3 | 2 644.5 | 2 857.8 | 2 014.4 | 921.9 | 1 092.5 | 3 487.9 | 1 722.6 | 1 765.3 |

### Brazil 1960 */

| Age | Total | Male | Female | Total | Male | Female | Total | Male | Female |
|---|---|---|---|---|---|---|---|---|---|
| Total population | 70 119.0 | 35 010.7 | 35 108.3 | 32 471.5 | 15 621.7 | 16 849.8 | 37 647.5 | 19 389.1 | 18 258.4 |
| 0-19 | 37 073.9 | 18 604.2 | 18 469.7 | 15 787.8 | 7 709.9 | 8 077.9 | 21 232.0 | 10 894.3 | 10 391.7 |
| 0- 6 | 15 431.8 | 7 868.0 | 7 563.8 | 6 451.9 | 3 249.7 | 3 202.2 | 8 980.0 | 4 618.3 | 4 361.7 |
| 7-14 | 14 499.7 | 7 290.5 | 7 209.2 | 6 164.7 | 3 013.3 | 3 151.4 | 8 334.8 | 4 277.2 | 4 057.6 |
| 15-19 | 7 142.4 | 3 445.7 | 3 696.7 | 3 171.2 | 1 446.9 | 1 724.3 | 3 971.2 | 1 998.8 | 1 972.4 |

### Colombia 1951 */

| Age | Total | Male | Female | Total | Male | Female | Total | Male | Female |
|---|---|---|---|---|---|---|---|---|---|
| Total population | 11 228.5 | 5 579.2 | 5 649.3 | | | | | | |
| 0-19 | 5 928.8 | 2 974.9 | 2 953.9 | | | | | | |
| 0- 6 | 2 529.4 | 1 283.6 | 1 243.8 | | | | | | |
| 7-14 | 2 248.9 | 1 146.2 | 1 104.7 | | | | | | |
| 15-19 | 1 150.5 | 545.1 | 605.4 | | | | | | |

### Costa Rica 1950

| Age | Total | Male | Female | Total | Male | Female | Total | Male | Female |
|---|---|---|---|---|---|---|---|---|---|
| Total population | 800.3 | 399.5 | 400.8 | 268.0 | 124.5 | 143.5 | 532.0 | 275.0 | 257.0 |
| 0-19 | 427.3 | 214.4 | 212.9 | 128.1 | 62.1 | 66.0 | 299.2 | 152.4 | 146.9 |
| 0- 6 | 181.9 | 92.5 | 89.4 | 52.3 | 26.4 | 25.9 | 129.6 | 66.2 | 63.5 |
| 7-14 | 161.2 | 81.5 | 79.7 | 47.5 | 23.4 | 24.1 | 113.7 | 58.1 | 55.6 |
| 15-19 | 84.2 | 40.4 | 43.8 | 28.3 | 12.3 | 16.0 | 55.9 | 28.1 | 27.8 |

### Costa Rica 1963 */

| Age | Total | Male | Female | Total | Male | Female | Total | Male | Female |
|---|---|---|---|---|---|---|---|---|---|
| Total population | 1 332.1 | 663.9 | 668.2 | 530.7 | 250.4 | 280.3 | 801.2 | 413.4 | 387.8 |
| 0-19 | | | | | | | | | |
| 0- 6 | 340.1 | 171.1 | 169.0 | 121.2 | 60.6 | 60.6 | 218.9 | 110.4 | 108.5 |
| 7-14 | 294.4 | 147.4 | 147.0 | 110.6 | 54.7 | 55.9 | 183.9 | 92.8 | 91.1 |
| 15-19 | 126.3 | 62.2 | 64.1 | 52.3 | 23.3 | 29.0 | 73.9 | 38.9 | 35.0 |

Sources: Brazil 1950: Demographic Yearbook 1953; Brazil 1960: Censo de Población 1960, Resultados prelimi-
nares, Servicio Nacional del Censo.

Colombia 1951: Censo de Población 1951. Departamento Administrativo Nacional de Estadística.

Costa Rica 1950: Censo de Población 1950, Dirección General de Estadística y Censos de Costa Rica;
Costa Rica 1963: Demographic Yearbook 1963, page 182, preliminary figures.

*/ Because of the unavailability of data by single years of age, the age groups 0 to 6 and 7 to 14 were
obtained by interpolation, using Sprague Multipliers.

Appendix (cont.2)

| Age | Total | | | Urban | | | Rural | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Male | Female | Total | Male | Female | Total | Male | Female |
| **Cuba 1943 */** | | | | | | | | | |
| Total population | 4 778.7 | 2 498.8 | 2 279.9 | | | | | | |
| 0-19 | 2 195.5 | 1 121.0 | 1 074.5 | | | | | | |
| 0- 6 | 862.7 | 442.9 | 421.3 | | | | | | |
| 7-14 | 877.0 | 450.6 | 424.9 | | | | | | |
| 15-19 | 455.8 | 227.5 | 228.3 | | | | | | |
| **Cuba 1953** | | | | | | | | | |
| Total population | 5 826.3 | 2 983.6 | 2 842.7 | 3 322.5 | 1 629.6 | 1 692.9 | 2 503.6 | 1 354.0 | 1 149.6 |
| 0-19 | 2 675.6 | 1 349.4 | 1 326.2 | 1 324.0 | 655.4 | 668.6 | 1 351.6 | 694.1 | 657.5 |
| 0- 6 | 1 030.2 | 525.5 | 504.7 | 489.4 | 248.8 | 240.6 | 540.9 | 276.8 | 264.1 |
| 7-14 | 1 087.5 | 554.5 | 533.0 | 534.9 | 268.0 | 266.9 | 552.5 | 286.5 | 266.0 |
| 15-19 | 557.9 | 269.4 | 288.5 | 299.7 | 138.6 | 161.1 | 258.2 | 130.8 | 127.4 |
| **Chile 1940 */** | | | | | | | | | |
| Total population | 5 023.6 | 2 490.1 | 2 533.5 | | | | | | |
| 0-19 | 2 379.0 | 1 198.8 | 1 180.2 | | | | | | |
| 0- 6 | 875.8 | 442.5 | 433.3 | | | | | | |
| 7-14 | 990.4 | 500.0 | 490.4 | | | | | | |
| 15-19 | 512.8 | 256.3 | 256.5 | | | | | | |
| **Chile 1952** | | | | | | | | | |
| Total population | 5 911.9 | 2 899.8 | 3 012.1 | 3 558.9 | 1 658.6 | 1 900.3 | 2 353.0 | 1 241.2 | 1 111.8 |
| 0-19 | 2 780.4 | 1 392.0 | 1 388.4 | 1 563.6 | 357.8 | 805.8 | 1 216.8 | 634.3 | 582.5 |
| 0- 6 | 1 105.4 | 556.8 | 548.6 | 612.2 | 306.9 | 305.3 | 493.2 | 249.9 | 243.3 |
| 7-14 | 1 103.1 | 554.2 | 548.9 | 611.4 | 298.6 | 312.8 | 491.7 | 255.7 | 236.0 |
| 15-19 | 571.9 | 281.0 | 290.9 | 340.0 | 152.3 | 187.7 | 231.9 | 128.7 | 103.2 |
| **Chile 1960** | | | | | | | | | |
| Total population | 7 374.0 | 3 612.8 | 3 761.2 | 5 028.2 | 2 366.3 | 2 661.9 | 2 345.8 | 1 246.2 | 1 099.6 |
| 0-19 | 3 647.3 | 1 822.7 | 1 824.6 | 2 393.1 | 1 170.5 | 1 222.6 | 1 254.2 | 652.0 | 602.2 |
| 0- 6 | 1 521.3 | 764.1 | 757.2 | 990.3 | 495.8 | 494.5 | 531.0 | 268.1 | 262.9 |
| 7-14 | 1 401.2 | 704.0 | 697.2 | 906.1 | 446.6 | 459.5 | 495.1 | 257.4 | 237.7 |
| 15-19 | 724.8 | 354.6 | 370.2 | 496.7 | 228.1 | 268.6 | 228.1 | 126.5 | 101.6 |

Sources: Censo de Población 1943, Dirección General del Censo; Cuba 1953: Censo de Población 1953, Oficina Nacional de los Censos Demográficos y Electorales.

Chile 1940: Demographic Yearbook 1949-1950; Chile 1952: Censo de Población 1952, Servicio Nacional de Estadística y Censos; Chile 1960: Censo de Población 1960, Dirección de Estadística y Censos.

*/ Because of the unavailability of data by single years of age, the age groups 0 to 6 and 7 to 14 were obtained by interpolation, using Sprague Multipliers.

Appendix (cont. 3)

| Age | Total | | | Urban | | | Rural | | |
|-----|-------|------|--------|-------|------|--------|-------|------|--------|
| | Total | Male | Female | Total | Male | Female | Total | Male | Female |

### Ecuador 1950

| Age | Total | Male | Female | | | | | | |
|-----|-------|------|--------|---|---|---|---|---|---|
| Total population | 3 201.8 | 1 594.1 | 1 607.7 | | | | | | |
| 0-19 | 1 677.1 | 852.7 | 824.4 | | | | | | |
| 0- 6 | 730.9 | 371.5 | 359.4 | | | | | | |
| 7-14 | 628.7 | 323.7 | 305.0 | | | | | | |
| 15-19 | 317.5 | 157.5 | 160.0 | | | | | | |

### Ecuador 1962 */

| Age | Total | Male | Female | Total | Male | Female | Total | Male | Female |
|-----|-------|------|--------|-------|------|--------|-------|------|--------|
| Total population | 4 514.8 | 2 267.5 | 2 247.3 | 1 617.0 | 780.6 | 836.4 | 2 897.7 | 1 486.6 | 1 411.1 |
| 0-19 | 2 473.1 | 1 261.2 | 1 211.9 | 883.2 | 437.4 | 445.8 | 1 589.9 | 823.7 | 766.2 |
| 0- 6 | 1 064.7 | 544.4 | 520.3 | 364.7 | 184.8 | 179.9 | 700.0 | 359.6 | 340.4 |
| 7-14 | 972.0 | 501.2 | 470.8 | 350.7 | 174.3 | 176.4 | 621.3 | 326.8 | 294.5 |
| 15-19 | 436.4 | 215.6 | 220.8 | 167.8 | 78.3 | 89.5 | 268.6 | 137.3 | 131.3 |

### El Salvador 1950

| Age | Total | Male | Female | Total | Male | Female | Total | Male | Female |
|-----|-------|------|--------|-------|------|--------|-------|------|--------|
| Total population | 1 854.5 | 917.7 | 936.8 | 674.9 | 313.9 | 361.0 | 1 179.8 | 604.3 | 575.5 |
| 0-19 | 962.2 | 486.3 | 475.9 | 321.8 | 157.3 | 164.5 | 640.5 | 329.1 | 311.4 |
| 0- 6 | 398.4 | 201.9 | 196.5 | 128.4 | 64.9 | 63.5 | 270.1 | 137.1 | 133.0 |
| 7-14 | 365.0 | 187.3 | 177.7 | 121.0 | 59.7 | 61.3 | 244.0 | 127.6 | 116.4 |
| 15-19 | 198.8 | 97.1 | 101.7 | 72.4 | 32.7 | 39.7 | 126.4 | 64.4 | 62.0 |

### El Salvador 1961 */

| Age | Total | Male | Female | Total | Male | Female | Total | Male | Female |
|-----|-------|------|--------|-------|------|--------|-------|------|--------|
| Total population | 2 510.6 | 1 237.7 | 1 272.9 | 979.7 | 456.3 | 523.4 | 1 531.2 | 781.4 | 749.8 |
| 0-19 | 1 364.2 | 689.9 | 674.3 | 502.9 | 248.6 | 254.3 | 861.4 | 441.6 | 419.8 |
| 0- 6 | 594.2 | 301.1 | 293.1 | 211.7 | 107.1 | 104.6 | 362.5 | 194.0 | 188.6 |
| 7-14 | 531.3 | 273.2 | 258.1 | 194.3 | 98.1 | 96.2 | 337.0 | 175.4 | 161.6 |
| 15-19 | 238.7 | 115.6 | 123.1 | 96.9 | 43.4 | 53.5 | 141.8 | 72.2 | 69.6 |

### Guatemala 1940 */

| Age | Total | Male | Female | | | | | | |
|-----|-------|------|--------|---|---|---|---|---|---|
| Total population | 3 280.2 | 1 658.8 | 1 621.4 | | | | | | |
| 0-19 | 1 773.5 | 905.5 | 868.0 | | | | | | |
| 0- 6 | 713.2 | 361.7 | 351.3 | | | | | | |
| 7-14 | 717.8 | 375.4 | 342.6 | | | | | | |
| 15-19 | 342.5 | 168.4 | 174.1 | | | | | | |

Sources: Censo de Población 1950, Dirección General de Estadística y Censos; Ecuador 1962: Censo de Población 1962, Cifras preliminares División de Estadística y Censos.

El Salvador 1950: Censo de Población 1950, Dirección General de Estadística y Censos; El Salvador 1961: Censo de Población 1961, Dirección General de Estadística y Censos, Cifras preliminares.

Guatemala 1940: Demographic Yearbook 1949-1950.

*/ Because of the unavailability of data by single years of age, the age groups 0 to 6 and 7 to 14 were obtained by interpolation, using Sprague Multipliers.

Appendix (cont. 4)

| Age | Total | | | Urban | | | Rural | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Male | Female | Total | Male | Female | Total | Male | Female |
| Guatemala 1950 | | | | | | | | | |
| Total population | 2 790.7 | 1 410.8 | 1 379.9 | 696.5 | 336.2 | 360.3 | 2 094.2 | 1 074.4 | 1 019.8 |
| 0-19 | 1 486.2 | 757.8 | 728.4 | 336.9 | 167.3 | 169.6 | 1 149.3 | 590.5 | 558.8 |
| 0- 6 | 639.0 | 326.7 | 312.3 | 140.3 | 70.9 | 69.4 | 498.7 | 255.8 | 242.9 |
| 7-14 | 540.6 | 280.8 | 259.8 | 120.2 | 60.8 | 59.4 | 420.4 | 220.0 | 200.4 |
| 15-19 | 306.6 | 150.3 | 156.3 | 76.4 | 35.6 | 40.8 | 230.2 | 114.7 | 115.5 |
| Haiti 1950 */ | | | | | | | | | |
| Total population | 3 086.0 | 1 498.8 | 1 587.2 | | | | | | |
| 0-19 | 1 481.1 | 742.8 | 738.3 | | | | | | |
| 0- 6 | 532.3 | 263.6 | 268.7 | | | | | | |
| 7-14 | 640.8 | 324.9 | 315.9 | | | | | | |
| 15-19 | 308.0 | 154.3 | 153.7 | | | | | | |
| Honduras 1940 */ | | | | | | | | | |
| Total population | 1 106.5 | 555.7 | 550.8 | | | | | | |
| 0-19 | 590.7 | 300.4 | 290.3 | | | | | | |
| 0- 6 | 251.6 | 126.8 | 124.8 | | | | | | |
| 7-14 | 220.1 | 113.6 | 106.5 | | | | | | |
| 15-19 | 119.0 | 60.0 | 59.0 | | | | | | |
| Honduras 1945 */ | | | | | | | | | |
| Total population | 1 200.5 | 601.8 | 598.7 | | | | | | |
| 0-19 | 635.0 | 321.3 | 313.7 | | | | | | |
| 0- 6 | 262.3 | 131.8 | 130.5 | | | | | | |
| 7-14 | 238.8 | 122.5 | 116.3 | | | | | | |
| 15-19 | 133.9 | 67.0 | 66.9 | | | | | | |
| Honduras 1950 */ | | | | | | | | | |
| Total population | 1 505.5 | 754.7 | 750.8 | | | | | | |
| 0-19 | 763.7 | 389.7 | 374.0 | | | | | | |
| 0- 6 | 318.3 | 162.1 | 156.2 | | | | | | |
| 7-14 | 292.9 | 150.8 | 142.1 | | | | | | |
| 15-19 | 152.5 | 76.8 | 75.7 | | | | | | |

Sources: Guatemala 1950: Censo de Población 1950, Dirección General de Estadística.

   Haiti 1950: Demographic Yearbook 1954.

   Honduras 1940: Demographic Yearbook 1960; Honduras 1945: Demographic Yearbook 1949-1950; Honduras 1950: Demographic Yearbook 1953.

*/ Because of the unavailability of data by single years of age, the age groups 0 to 6 and 7 to 14 were obtained by interpolation, using Sprague Multipliers.

Appendix (cont. 5)

| Age | Total | | | Urban | | | Rural | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Male | Female | Total | Male | Female | Total | Male | Female |
| **Honduras 1961 */** | | | | | | | | | |
| Total population | 1 865.8 | 928.5 | 937.3 | | | | | | |
| 0-19 | 1 081.0 | 544.9 | 536.1 | | | | | | |
| 0- 6 | 486.0 | 247.0 | 239.0 | | | | | | |
| 7-14 | 410.7 | 210.1 | 200.6 | | | | | | |
| 15-19 | 184.3 | 87.8 | 96.5 | | | | | | |
| **Mexico 1940 */** | | | | | | | | | |
| Total population | 19 648.7 | 9 693.2 | 9 955.5 | | | | | | |
| 0-19 | 10 092.4 | 5 105.9 | 4 986.5 | | | | | | |
| 0- 6 | 4 031.6 | 2 038.6 | 1 993.0 | | | | | | |
| 7-14 | 4 064.5 | 2 097.8 | 1 966.7 | | | | | | |
| 15-19 | 1 996.3 | 969.5 | 1 026.8 | | | | | | |
| **Mexico 1950 */** | | | | | | | | | |
| Total population | 25 743.7 | 12 675.9 | 13 067.8 | | | | | | |
| 0-19 | 13 386.7 | 6 713.4 | 6 673.3 | | | | | | |
| 0- 6 | 5 498.3 | 2 770.4 | 2 727.9 | | | | | | |
| 7-14 | 5 256.2 | 2 694.4 | 2 561.8 | | | | | | |
| 15-19 | 2 632.2 | 1 248.6 | 1 383.6 | | | | | | |
| **Mexico 1960 */** | | | | | | | | | |
| Total population | 34 809.5 | 17 350.6 | 17 458.9 | 17 644.1 | 8 570.7 | 9 073.4 | 17 165.4 | 8 780.2 | 8 385.2 |
| 0-19 | 18 987.3 | 9 615.6 | 9 371.7 | 9 386.8 | 4 687.9 | 4 698.9 | 9 600.6 | 4 927.7 | 4 672.9 |
| 0- 6 | 8 000.8 | 4 064.8 | 3 936.0 | 4 340.7 | 2 201.9 | 2 138.8 | 4 334.8 | 2 207.9 | 2 126.9 |
| 7-14 | 7 451.2 | 3 812.0 | 3 639.2 | 3 268.7 | 1 642.1 | 1 626.6 | 3 507.9 | 1 824.8 | 1 683.1 |
| 15-19 | 3 535.3 | 1 738.8 | 1 796.5 | 1 777.4 | 843.9 | 933.5 | 1 757.9 | 895.0 | 862.9 |
| **Nicaragua 1940 */** | | | | | | | | | |
| Total population | 982.4 | 476.8 | 505.6 | | | | | | |
| 0-19 | 528.5 | 261.5 | 267.0 | | | | | | |
| 0- 6 | 217.8 | 107.9 | 109.9 | | | | | | |
| 7-14 | 203.9 | 101.0 | 102.9 | | | | | | |
| 15-19 | 106.8 | 52.6 | 54.2 | | | | | | |

Sources: Honduras 1961: Censo de Población 1961, datos preliminares Dirección General de Estadística y Censos.

Mexico 1940: Demographic Yearbook 1949-1950; Mexico 1950: Demographic Yearbook 1954; Mexico 1960: Demographic Yearbook 1963.

Nicaragua 1940: Demographic Yearbook 1949-1950.

*/ Because of the unavailability of data by single years of age, the age groups 0 to 6 and 7 to 14 were obtained by interpolation, using Sprague Multipliers.

Appendix (cont. 6)

| Age | Total | | | Urban | | | Rural | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Male | Female | Total | Male | Female | Total | Male | Female |
| **Nicaragua 1950 */** | | | | | | | | | |
| Total population | 1 057.0 | 520.5 | 536.5 | 369.3 | 163.0 | 206.3 | 687.8 | 357.5 | 330.3 |
| 0-19 | 567.9 | 287.6 | 280.3 | 186.6 | 88.9 | 97.7 | 381.4 | 198.7 | 182.7 |
| 0- 6 | 232.8 | 118.4 | 114.4 | 76.4 | 38.2 | 38.2 | 158.2 | 81.1 | 77.1 |
| 7-14 | 224.6 | 116.4 | 108.2 | 70.6 | 34.1 | 36.5 | 152.3 | 81.4 | 70.9 |
| 15-19 | 110.5 | 52.8 | 57.7 | 39.6 | 16.6 | 23.0 | 70.9 | 36.2 | 34.7 |
| **Nicaragua 1963 */** | | | | | | | | | |
| Total population | 1 535.6 | 758.1 | 777.5 | 627.3 | 288.4 | 338.9 | 908.5 | 469.6 | 438.9 |
| 0-19 | 888.7 | 447.9 | 440.8 | 349.9 | 170.0 | 179.9 | 538.8 | 277.7 | 261.1 |
| 0- 6 | 391.1 | 198.5 | 192.6 | 149.0 | 75.0 | 74.0 | 242.1 | 123.4 | 118.7 |
| 7-14 | 349.7 | 178.6 | 171.1 | 139.4 | 68.6 | 70.8 | 210.3 | 110.0 | 100.3 |
| 15-19 | 147.9 | 70.8 | 77.1 | 61.5 | 26.4 | 35.1 | 86.4 | 44.3 | 42.1 |
| **Panama 1940 */** | | | | | | | | | |
| Total population | 566.7 | 290.8 | 275.9 | 210.7 | 104.9 | 105.8 | 356.1 | 185.9 | 170.2 |
| 0-19 | 279.5 | 140.4 | 139.1 | 85.8 | 41.2 | 44.6 | 193.7 | 99.2 | 94.5 |
| 0- 6 | 113.9 | 57.6 | 56.3 | 31.7 | 15.8 | 15.9 | 82.3 | 41.8 | 40.5 |
| 7-14 | 108.6 | 55.7 | 52.9 | 32.4 | 15.8 | 16.6 | 76.1 | 39.9 | 36.2 |
| 15-19 | 57.0 | 27.1 | 29.9 | 21.7 | 9.6 | 12.1 | 35.3 | 17.5 | 17.8 |
| **Panama 1950 */** | | | | | | | | | |
| Total population | 755.5 | 384.7 | 370.8 | 299.2 | 145.4 | 153.8 | 483.3 | 253.3 | 230.0 |
| 0-19 | 386.9 | 194.7 | 192.2 | 139.1 | 68.1 | 71.0 | 274.7 | 140.7 | 134.0 |
| 0- 6 | 167.7 | 84.5 | 83.2 | 63.7 | 32.2 | 31.5 | 130.9 | 66.0 | 64.9 |
| 7-14 | 146.7 | 74.6 | 72.1 | 47.6 | 23.8 | 23.8 | 99.0 | 51.2 | 47.8 |
| 15-19 | 72.5 | 35.6 | 36.9 | 27.8 | 12.1 | 15.7 | 44.8 | 23.5 | 21.3 |
| **Panama 1960** | | | | | | | | | |
| Total population | 1 013.2 | 515.9 | 497.3 | 446.0 | 214.9 | 231.1 | 567.1 | 301.1 | 266.0 |
| 0-19 | 539.2 | 272.4 | 266.8 | 217.6 | 106.3 | 111.3 | 321.6 | 166.1 | 155.5 |
| 0- 6 | 230.6 | 116.7 | 113.9 | 88.1 | 44.6 | 43.5 | 142.5 | 72.1 | 70.4 |
| 7-14 | 207.0 | 105.2 | 101.8 | 82.4 | 40.6 | 41.8 | 124.6 | 64.6 | 60.0 |
| 15-19 | 101.6 | 50.5 | 51.1 | 47.1 | 21.1 | 26.0 | 54.5 | 29.4 | 25.1 |

Sources: Nicaragua 1950: Censo de Población 1950, Dirección General de Estadística y Censos; Nicaragua 1963: Censo de Población 1963, Dirección General de Estadística y Censos.

Panama 1940: Demographic Yearbook 1949-1950; Panama 1950: Censo de Población 1950, Dirección de Estadística y Censos; Panama 1960: Censo de Población 1960, Dirección de Estadística y Censos.

*/ Because of the unavailability of data by single years of age, the age groups 0 to 6 and 7 to 14 were obtained by interpolation, using Sprague Multipliers.

Appendix (cont. 7)

| Age | Total | | | Urban | | | Rural | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Male | Female | Total | Male | Female | Total | Male | Female |
| | | | | Paraguay 1950 */ | | | | | |
| Total population | 1 328.2 | 649.1 | 679.1 | | | | | | |
| 0-19 | 710.0 | 360.2 | 349.8 | | | | | | |
| 0- 6 | 299.0 | 152.0 | 147.0 | | | | | | |
| 7-14 | 282.3 | 145.0 | 137.3 | | | | | | |
| 15-19 | 128.7 | 63.2 | 65.5 | | | | | | |
| | | | | Peru 1940 */ | | | | | |
| Total population | 6 206.0 | 3 067.0 | 3 139.0 | | | | | | |
| 0-19 | 3 201.1 | 1 632.6 | 1 568.5 | | | | | | |
| 0- 6 | 1 348.4 | 680.4 | 668.0 | | | | | | |
| 7-14 | 1 263.8 | 656.2 | 607.6 | | | | | | |
| 15-19 | 588.9 | 296.0 | 292.9 | | | | | | |
| | | | | Peru 1961 */ | | | | | |
| Total population | 9 901.8 | 4 923.1 | 4 978.7 | 4 696.1 | 2 338.7 | 2 357.4 | 5 205.8 | 2 584.4 | 2 621.4 |
| 0-19 | 5 263.8 | 2 667.7 | 2 596.1 | 2 440.1 | 1 229.2 | 1 210.9 | 2 823.7 | 1 438.6 | 1 385.1 |
| 0- 6 | 2 294.3 | 1 152.2 | 1 142.1 | 1 008.0 | 506.6 | 501.4 | 1 286.2 | 645.6 | 640.6 |
| 7-14 | 1 995.8 | 1 021.5 | 974.3 | 931.3 | 470.8 | 460.5 | 1 064.6 | 550.8 | 513.8 |
| 15-19 | 973.7 | 494.0 | 479.7 | 500.8 | 251.8 | 249.0 | 472.9 | 242.2 | 230.7 |
| | | | | Dominican Republic 1950 */ | | | | | |
| Total population | 2 135.6 | 1 070.7 | 1 064.9 | 508.5 | 233.6 | 274.9 | 1 627.3 | 837.3 | 790.0 |
| 0-19 | 1 176.1 | 583.4 | 592.7 | 247.2 | 116.1 | 131.1 | 929.0 | 467.3 | 461.7 |
| 0- 6 | 499.1 | 251.3 | 247.8 | 99.1 | 49.6 | 49.5 | 400.1 | 201.7 | 198.4 |
| 7-14 | 451.3 | 230.5 | 220.8 | 90.4 | 43.0 | 47.4 | 360.8 | 187.5 | 173.3 |
| 15-19 | 225.7 | 101.6 | 124.1 | 57.7 | 23.5 | 34.2 | 168.1 | 78.1 | 90.0 |
| | | | | Dominican Republic 1960 */ | | | | | |
| Total population | 3 013.6 | 1 521.7 | 1 491.9 | | | | | | |
| 0-19 | 1 663.5 | 839.9 | 823.6 | | | | | | |
| 0- 6 | 705.1 | 356.0 | 349.1 | | | | | | |
| 7-14 | 639.0 | 322.6 | 316.4 | | | | | | |
| 15-19 | 319.4 | 161.3 | 158.1 | | | | | | |

Sources: Paraguay 1950: Demographic Yearbook 1954.

Peru 1940: Demographic Yearbook 1949-1950; Perú 1961: Censo de Población 1961, Dirección Nacional de Estadística y Censos.

Dominican Republic 1950: Demographic Yearbook 1954; Dominican Republic 1960: Demographic Yearbook 1963, cifras provisionales.

*/ Because of the unavailability of data by single years of age, the age groups 0 to 6 and 7 to 14 were obtained by interpolation, using Sprague Multipliers.

Appendix (cont. 8)

| | Total | | | Urban | | | Rural | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Male | Female | Total | Male | Female | Total | Male | Female |
| | | | | Uruguay 1963 */ | | | | | |
| Total population | 2 576.3 | 1 285.4 | 1 290.9 | 2 119.3 | 1 025.6 | 1 093.7 | 457.0 | 259.8 | 197.2 |
| 0-19 | 928.2 | 471.8 | 456.4 | 744.6 | 372.2 | 372.4 | 183.6 | 99.6 | 84.0 |
| 0- 6 | 354.0 | 181.9 | 172.1 | 284.5 | 145.5 | 139.0 | 69.5 | 36.4 | 33.1 |
| 7-14 | 367.5 | 187.3 | 180.2 | 293.3 | 146.4 | 146.9 | 74.2 | 40.9 | 33.3 |
| 15-19 | 206.7 | 102.6 | 104.1 | 166.8 | 80.3 | 86.5 | 39.9 | 22.3 | 17.6 |
| | | | | Venezuela 1941 */ | | | | | |
| Total population | 3 844.0 | 1 904.4 | 1 939.6 | | | | | | |
| 0-19 | 1 976.3 | 996.5 | 979.8 | | | | | | |
| 0- 6 | 792.7 | 401.1 | 391.6 | | | | | | |
| 7-14 | 781.1 | 404.5 | 376.6 | | | | | | |
| 15-19 | 402.5 | 190.9 | 211.6 | | | | | | |
| | | | | Venezuela 1950 */ | | | | | |
| Total population | 5 026.6 | 2 547.9 | 2 478.7 | 2 703.2 | 1 346.7 | 1 356.5 | 2 323.7 | 1 201.2 | 1 122.5 |
| 0-19 | 2 606.3 | 1 328.2 | 1 278.1 | 1 324.6 | 662.1 | 662.5 | 1 281.9 | 666.1 | 615.8 |
| 0- 6 | 1 138.9 | 581.4 | 557.5 | 577.8 | 295.3 | 282.5 | 561.2 | 286.1 | 275.1 |
| 7-14 | 970.8 | 502.6 | 468.2 | 475.5 | 240.1 | 235.4 | 495.4 | 262.5 | 232.9 |
| 15-19 | 496.6 | 244.2 | 252.4 | 271.3 | 126.7 | 144.6 | 225.3 | 117.5 | 107.8 |
| | | | | Venezuela 1961 | | | | | |
| Total population | 7 524.1 | 3 823.7 | 3 700.4 | | | | | | |
| 0-19 | 4 081.3 | 2 072.8 | 2 008.5 | | | | | | |
| 0- 6 | 1 805.3 | 920.4 | 884.9 | | | | | | |
| 7-14 | 1 565.5 | 801.5 | 764.0 | | | | | | |
| 15-19 | 710.5 | 350.9 | 359.6 | | | | | | |
| | | | | Puerto Rico 1940 */ | | | | | |
| Total population | 1 868.3 | 938.0 | 930.3 | 565.9 | 264.6 | 301.3 | 1 302.4 | 673.2 | 629.2 |
| 0-19 | 965.4 | 484.1 | 481.3 | 259.4 | 125.2 | 134.2 | 705.9 | 358.8 | 347.1 |
| 0- 6 | 384.3 | 195.0 | 189.3 | 93.7 | 48.2 | 45.5 | 290.6 | 147.8 | 142.8 |
| 7-14 | 374.9 | 189.6 | 185.3 | 99.1 | 47.4 | 51.7 | 275.8 | 141.2 | 134.6 |
| 15-19 | 206.2 | 99.5 | 106.7 | 66.6 | 29.6 | 37.0 | 139.5 | 69.8 | 69.7 |

Source: Uruguay 1963: Censo de Población 1963. Resultados de muestras Dirección General de Estadística y Censos.

Venezuela 1941: Demographic Yearbook 1949-1950; Venezuela 1950: Demographic Yearbook 1954; Venezuela 1961: Censo de Población 1961, Dirección General de Estadística y Censos Naciones, muestra del 1.5 por ciento.

Puerto Rico 1940: Demographic Yearbook 1949-1950.

*/ Because of the unavailability of data by single years of age, the age groups 0 to 6 and 7 to 14 were obtained by interpolation, using Sprague Multipliers.

Appendix (conc.)

| Age | Total | | | Urban | | | Rural | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Male | Female | Total | Male | Female | Total | Male | Female |
| **Puerto Rico 1950 */** | | | | | | | | | |
| Total population | 2 210.4 | 1 111.1 | 1 099.3 | 894.8 | 429.5 | 465.3 | 1 315.9 | 681.5 | 634.4 |
| 0-19 | 1 175.4 | 594.0 | 581.4 | 426.4 | 209.9 | 216.5 | 749.4 | 384.3 | 365.1 |
| 0-6 | 499.3 | 252.3 | 247.0 | 179.1 | 90.7 | 88.4 | 322.6 | 163.3 | 159.3 |
| 7-14 | 455.9 | 252.8 | 203.1 | 158.3 | 78.5 | 79.8 | 295.3 | 152.7 | 142.6 |
| 15-19 | 220.2 | 108.9 | 111.3 | 89.0 | 40.7 | 48.3 | 131.5 | 68.3 | 63.2 |
| **Puerto Rico 1960** | | | | | | | | | |
| Total population | 2 349.7 | 1 162.8 | 1 186.9 | 1 039.3 | 498.1 | 541.2 | 1 310.4 | 664.7 | 645.7 |
| 0-19 | 1 250.0 | 630.4 | 619.6 | 497.6 | 247.0 | 250.6 | 752.4 | 383.4 | 369.0 |
| 0-6 | 487.6 | 246.8 | 240.8 | 191.8 | 97.0 | 94.8 | 295.8 | 149.8 | 146.0 |
| 7-14 | 515.5 | 261.0 | 254.5 | 201.5 | 100.9 | 100.6 | 314.0 | 160.1 | 153.9 |
| 15-19 | 246.9 | 122.6 | 124.3 | 104.3 | 49.1 | 55.2 | 142.6 | 73.5 | 69.1 |

Sources: Puerto Rico 1950: Demographic Yearbook 1954; Puerto Rico 1960: United States Department of Commerce, Bureau of the Census. 1960 Census of Population, General Population Characteristics. Puerto Rico, Final Report PC (1)-53 B.

*/ Because of the unavailability of data by single years of age, the age groups 0 to 6 and 7 to 14 were obtained by interpolation, using Sprague Multipliers.