DIFFERENTIAL MIGRATION IN SOME REGIONS AND CITIES OF LATIN AMERICA IN THE PERIOD 1940-1950

- Methodological Aspects and Results -

by

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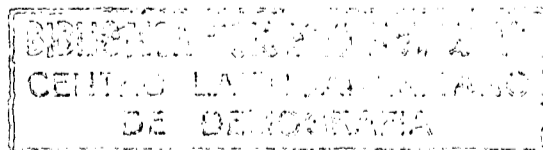
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ERRATA

Page 4, note $\underline{1}/$, 5th line:

Says: $^{n}P_{x}$ = probability of survival

Should say: $_{n}P_{x}$ = probability of survival

Page 5, note $\underline{1}/$:

Says: Migration between major administrative divisions.

Should say: Migration between major administrative divisions.   In comparing
estimates for Mexico and the United States with those for
Venezuela, consideration should be given to the fact for the two
former countries they refer the net migration (the addition of
the net migration of each state), while in the case of Venezuela
it represents the net in-migration which is equal to the uncom-
pensated interstable net out-migration.

Page 9, note $\underline{1}/$:

Says: It may be shown that the proportion on literate persons in the migrant
population (balance of in-migrants and out-migrants) may be estimated,
with a high degree of precision, by the relation:

$$\frac{R^{n}(1+t) - R^{o}}{t}$$

where R^{n} and R^{o} are, respectively, the proportion of literate persons
at the end and at the beginning of the period of observation, while t
is the migration "rate" calculated with respect to the initial populat-
ion within the respective cohort.

Should say: It may be shown that the proportion on literate persons in the
migrant population (balance of in-migrants and out-migrants) may
be estimated, with a high degree of precision, by the relation:

$$\frac{_{n}P (R^{n}-R^{o}) + R^{n} \cdot t}{t} \qquad (1)$$

where R^{n} and R^{o} are, respectively, the proportion of literate
perso. at the end and at the beginning of the period of obser-
vation: t is the migration "rate" calculated with respect to the
initial population within the respective cohort; and $_{n}P$ is the
probability of survival.   Values on columns 7, 10 and 13 of
Table 7 were calculated using this formula.

The previous caculation can be simplified by eliminating factor $_nP$, in which case relation (1) is reduced to:

$$\frac{R^n (1+t) - R^o}{t} \qquad (2)$$

If $_nP$ is a value near one, as it occurs approximately in ages under 50 years, the relation (2) gives results smaller than those obtained with relation (1). In Table 7 those differences would be of the order of 1 to 5 per cent.

In ages above 50 years, the differences may be of the order of 20, 30 or 50 per cent. A relatively low rate t can also contribute to a greater divergency of results, for example of 1 per cent per annum (or 10 per cent on a 10 year period) or less.

Page 17, Table 7:

(Column 7)		(Column 10)		(Column 13)	
Says	Should say	Says	Should say	Says	Should say
87.0 [a]	87.3 [a]	98.4	98.1	97.6	97.3
75.0	75.9	101.5	100.8	103.4	102.6
68.3	69.8	135.0	131.3	92.8	92.3
59.8	62.8	173.3	162.1		
26.8	38.6	95.1	91.8	80.0	79.5
16.6	46.7	123.5	96.1		
76.9	77.3	83.5	83.6	80.8	80.7
53.2	60.3	83.8	83.1	82.0	81.7
43.2	44.9	50.0	51.7	68.8	69.0
29.4	32.5	14.1	19.8		
25.6	30.9	(-)375.0	(-)291.7 [a]	77.4	75.7
34.9	43.2	147.0	100.0		

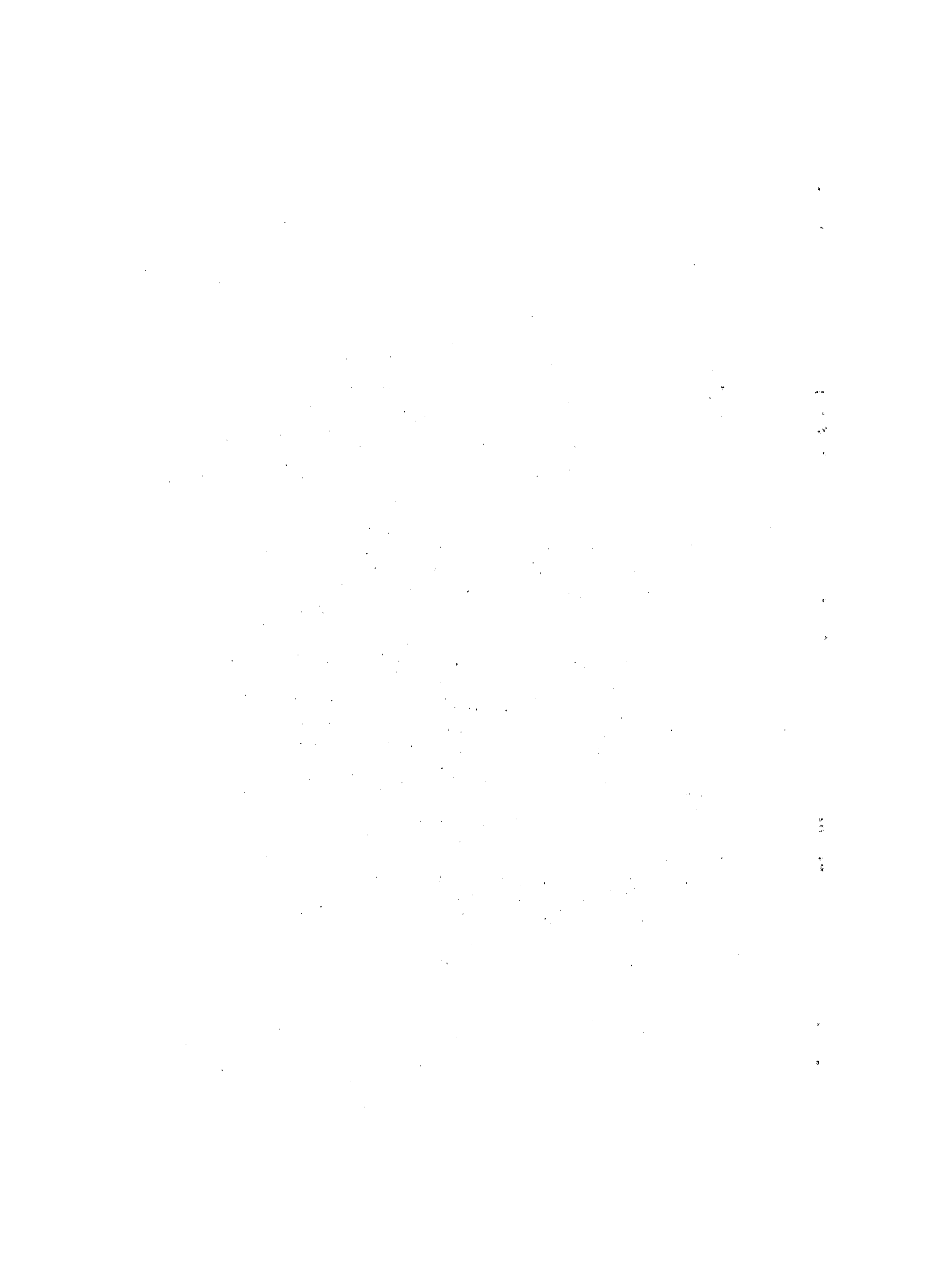[c] The negative result should be interpreted as the number of literate out-migrants per each net illiterate in-migrant. In this case there would be a net out-migration of approximately 300 literate for each 100 net illiterate in-migrant.

I N D E X

Various types of quantitative relationships may be used to measure differential migration. The type of information available and, to a certain extent, the characteristic investigated will determine the selection of the most appropriate method.

In any case, those measures always consist of comparing the composition of the migrant population according to the selected characteristic with the corresponding structure of a base population, which serves as a reference. When sex is the characteristic selected, it seems sufficient to use "masculinity ratios" or any other equivalent relation for the comparison. In the case of age, probably the most satisfactory measure would be the migration "rates" according to age. For educational characteristics, marital status and other qualitative attributes correlated with sex and age, the method indicated would be to compare the composition with respect to these attributes of the migrant and base population for specific sex-age groups.

1. Differential migration according to sex.

Some evidence, such as the surplus of female population in urban areas, especially in big cities, as well as estimates of migratory movements based on census data, have led to the thinking that a selectivity in favour of female migration exists. Frequently it is also held that a selection also causes a higher female "short-distance" migration while the opposite would be true for "long-distance" migration. [1] Nevertheless, the studies which have been made are insufficient to establish those two conclusions as having universal value.

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[1] For the purposes of this study "short-distance" migration is defined as the movement occurring within a given region (province, state or equivalent administrative division) while "long-distance" migration refers to inter-regional or interstate movements.

Most probably the direction and intensity of differential migration according to sex depends on local conditions.

Despite the limitations of this type of data, census information on place of birth related to place of enumeration, if presented with sufficient detail, can be used for estimating differential migration according to sex. [1] Table 1 presents for Venezuela percentages of native males and females, not born in the district where enumerated in the 1950 census. The figures for the whole country reveal a remarkable uniformity for both sexes in the interstate as well as in the interstate migrations. The differences, although small and maybe not significant, show a systematic tendency towards a higher selectivity of female "short-distance" in-migration. The same conclusion is reached when unweighted averages of the percentages of four states with high in-migration are compared with those corresponding to states with high out-migration. "Long-distance" migration, on the contrary, shows systematically a selectivity which is in favour of males, with the exception of the Federal District, where the masculinity ratio of the migrants is 86.6 per cent.

If the selectivity of the out-migrant population with respect to the native population of each "distrito" is being considered, the same uniformity manifests itself. In this case, a selection in favour of females predominates in "short" and "long-distance" migration, except for the Federal District, where "long-distance" male "out-migration" is higher.

An analysis, similar to the above one, was made of the in-migration in three "municipios" of Colombia and three "distritos" of Venezuela, all of which included a city of more than 100 000 inhabitants. The female selectivity in the in-migration to the Colombian "municipios" is important (see Table 2). In Bogota, for instance, the masculinity ratio of the in-migrants

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[1] The information covers a relatively long and not well defined period. In such circumstances, the probability is high that a great number of intermediate movements which may occur, will not be revealed by the data. Hypothetically, it might happen, that the male population is characterized by a higher individual mobility than the female population, although the final balance favour the female population.

(excluding foreigners) is 74.3, and if the in-migration considered is that proceeding from within the same "departamento" where the city of Bogota is located (Cundinamarca), the ratio falls to 65.8. The in-migration in the Venezuelan "distritos" shows also a selectivity in favour of females which is important, with the exception of the district of Maracaibo, where there is practically an equilibrium of both sexes. [1]

In the following section, results of various migration estimates by sex and age for the period 1940-1950 in various regions, will be analyzed (Tables 3, 4, 5, 6). These estimates include the population, which reached ages 10 and over at the end of the period. The rates [2] of migration by sex corresponding to that period do not confirm in all cases the selection in favour of females, which the foregoing data show. Thus it may be mentioned, for instance, that the rates of male in-migration of Venezuela, the Federal District of that country and of Rio de Janeiro (DF) and the states of Sao Paulo and Parana in Brazil, are somewhat higher than the corresponding female rates. Of the six big cities, for which net migration rates are shown in Table 6, five also have experienced in-migration, which was predominantly male.

Probably the male migration rates are favoured because of their being calculated in relation to a base population (population of the area of in-migration at mid-period) which is relatively smaller as a result, partly, of higher female longevity, especially as the population under 10 years of age is not considered.

2. Differential migration according to age.

Two types of census statistics may be used in Latin American countries for estimating differential migration according to age, viz. (a) population by age groups at the time of two censuses, taken with an interval of approximately 10 years, and (b) population by age groups and place of birth also for

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[1] The conditions are similar in other "distritos" in which there are relatively important urban agglomerations. In fact, taking a total of 20 "distritos" with an urban area of at least 20 000 inhabitants (but excluding the Federal District and Maracaibo) it is found that there are 89.7 male in-migrants per 100 females in-migrants in the case of "short-distance" migration, compared to 104.6 in the case of "long-distance" migration.

[2] For their definition, see Table 3, footnote c/.

two censuses. Data of the second type unfortunately are available only for major administrative divisions in Brazil and Venezuela.

With information of type (a) it is possible to estimate the net migration experienced by an area within a given period; statistics of type (b) permit in addition estimates of in-migration and out-migration. In both cases estimates of migration can be obtained by using the well-known method of applying to the initial population in each cohort specific survival probabilities, and comparing subsequently the "expected" population thus obtained with the population actually enumerated in the corresponding cohort at the end of the period of observation. This method was used to estimate net migration in Mexico and the United States, as well as for some areas of other countries. The survival ratios for each cohort and region were calculated on the basis of the "native" population in each cohort at the time of the first and the second census.

Statistics of type (b) were used in this document to estimate, by a different method, the total migration in Venezuela and the in-migration to certain areas of this country. The estimation was made for each cohort from the proportions at the beginning and the end of the period of in-migrants compared with the enumerated population plus the out-inmigrants. [1]

The hypotheses, implicit in this method in general (a. same level of mortality for in-migrants and out-migrants; b. in-migrants enumerated at the beginning of the period leave the cohort only as the result of death, and c. out-migrants enumerated at the beginning of the period do not return to the area) would not introduce serious errors in the results.

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[1] The formula used is: $t = \dfrac{{}^{n}P_x \left({}^{n}R_{x+n} - {}^{o}R_x\right)}{1 - {}^{n}R_{x+n}}$ where ${}^{o}R_x = \dfrac{{}^{o}I_x}{{}^{o}P_x + {}^{o}E_x}$

and ${}^{o}I_x$ = "in-migrants" at the beginning of the period.

${}^{o}E_x$ = "out-migrants" at the beginning of the period.

${}^{o}P_x$ = enumerated population at the beginning of the period (including in-migrants).

${}^{n}P_x$ = probability of survival.

The rate thus calculated is a rate measured in units of the enumerated population and the out-migrants, both at the initial moment $\left({}^{o}P_x + {}^{o}E_x\right)$. To express it as a function of ${}^{o}P_x$, it is sufficient to multiply it by the relation between these two quantities. The number of "in-migrants" can be obtained by multiplying either ${}^{o}P_x$ or ${}^{o}P_x + {}^{o}E_x$ by the corresponding rate. Finally, the rate of in-migration is obtained by dividing the number of "in-migrants" by the average population enumerated in each cohort.

The use of this method seems indicated, when the age composition of the enumerated population is affected by substantial errors, as it may be expected that this type of error will be compensated to a great extent through the calculation of the proportions R. The selection of the probabilities of survival or survival ratios do not present under these conditions any special problems. In this document probabilities have been taken from model life tables.

Finally it is to be noted that the calculation of both the net migration and the in-migration figures represent survivors at the end of the observation period.

3. Interstate migration [1] (1940-1950)

In this section estimates are given of interstate migration in three countries taken as a whole (Mexico, United States and Venezuela) and for five major administrative divisions, which are areas of high attraction, in three countries (Brazil, Colombia and Venezuela).

The differential character of migration manifests itself when the results are compared to the composition of the population of the area at the beginning of the period of observation. In Venezuela, for instance, the native male population between ages 10 to 29 represented in 1941 about 53 per cent of the population of 10 years and over, while in the migrant population of the period under consideration this proportion was 90 per cent. In the case of the Federal District of the same country, which includes the city of Caracas, these percentages were 61 per cent and 91 per cent respectively.

The relative intensity of migration in the various age groups provides an adequate measure of the differential migration. The higher the variation of the migration "rates", the more accentuated will be the differential character of the migration.

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[1] Migration between major administrative divisions.

As the levels of the overall migration "rates" of the areas under examination, are different, they have also been expressed in the form of indices.[1]

The areas under examination exhibit one common trait, namely, the high mobility of the young population, especially that under 30 years of age. The maximum rate corresponds to the group that by the middle of the period has reached ages 15 to 24 years, the next in importance is the group reaching 5 to 14 years. The differences between these two groups are more accentuated in the male population; in the female population the rates seem to be fairly uniform in some areas, while in others the "mid-period" age-group 15 to 24 years shows rates which are clearly higher. Although the classification in decennial age-groups makes it impossible to determine with more accuracy the ages at which mobility is highest, the data seem to indicate that these ages are around 20 years for males and between 15 and 19 years for females.

The distribution of the rates shows that the values decrease when age increases after reaching the maximum indicated in the foregoing paragraph. Nevertheless, the form of the distribution may differ considerably from one area to the other. At one extreme appear cases like Venezuela, where the rates of male migration attain a maximum value of 24.9 per cent in the age-cohort 20-29 years (age in 1950) and after that fall to 5.8 per cent in the cohort 30-39 years, to come finally to a low of 0.7 per cent in the cohort of 50 years and over. That is to say a fluctuation in the index from 389 to 11. The same tendency repeats itself in the female population but in a less marked manner. A situation similar to that in Venezuela is found in the States of Sao Paulo (Brazil) and Zulia (Venezuela).

At the other extreme, cases can be found where the distribution of the rates is more uniform. In Mexico, for instance, the index of the male rates vary from 150 (age 25-29) to 57 (in ages 60-64), and in the states of Parana (in Brazil) from 138 (ages 20-29) to 78 (in ages 50 and over). The same may be said about the "departamento" of Valle del Cauca (Colombia). It may be

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[1] The base of the indices (=100) is the (simple) average of the rates of each age-group. Because of the fact that the age intervals are not the same, each "rate" had to be weighted by a number proportional to the amplitude of the interval. In this case, the unit was used as weighting factor for each quinquennial age-group. The age-group of 75 years and over was considered as equivalent to one 5 year age-group.

noted that in these examples, the levels of the rates are very different.
In Mexico the male rate for 10 years and over is 5.2 per cent compared to
30.2 per cent in Parana and 36.5 per cent in Valle del Cauca.

4. Migration to big cities.

Table 6 shows estimates of migration to six cities of three countries
(Brazil, Colombia and Venezuela), including the capital of each of these
countries.[1] In the case of Caracas, and Rio de Janeiro it was possible to
estimate the in-migration. Due to lack of data only estimates of net migration
could be prepared for the remaining four cities. Nevertheless, as these are
areas of high attraction for in-migrants, net migration reflects predominantly
the in-migration movements. An evidence of this might be found by comparing
the overall in-migration rate and the net migration rate of Caracas and Rio
de Janeiro.

Unlike the interstate migration, the migration to cities includes also
the movements of persons within the major administrative divisions. As is to
be expected, therefore, the migration rates of cities of the type selected,
are at a much higher level than the regional migration or that of the country
as a whole. In fact, with the exception of Rio de Janeiro, where the net
migration was of the order of 1.5 per cent annually, the rates for the other
cities vary approximately between 3 and 5 per cent annually.

As well as in the interstate migration, the migration to these cities
is highly selective in favour of young adults and children, especially in the
"mid-period" age-group 15 to 24 years. Nevertheless, in the cities with the
highest net migration rates -about 5 per cent annually- like Bogota, Maracaibo
and Barquisimeto, a higher uniformity exists between values of the two first
cohorts of the table; in fact, the female rates reach a maximum in the cohort
10-19 years (in 1950).

Very striking are the Maracaibo and Barquisimeto rates in the higher
ages, which for the cohort of 50 years and over fluctuate between 3 and 5
per cent annually. In Rio de Janeiro, the rates for the same age-group are
of the order of 0.1 to 0.2 per cent and in Caracas of 0.8 to 1.1 per cent.

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[1] Data refers in fact to "municipios" or districts which include one
important city.

5. Differential migration according to educational level.

The available census statistics of the Latin American countries do not provide information on the educational characteristics of the migrant population. However, social conditions in regions of in-migration and out-migration do suggest that differences in educational levels may exist between the migrant and non-migrant population of a given area. [1]/ It may be assumed that persons born in a great city and those who migrated to such a city when children have on the average attained a higher level of education than in-migrants coming to the city after reaching their adult ages. In the latter group the educational attainment would vary, depending on whether the in-migrants came from other cities, rural areas or, in general, poor and backward areas. Unequal educational opportunities would explain these differences.

The rapid urbanization of the Latin American countries, characterized by a high rate of growth of a few big cities, poses a great number of social problems, some of them related to the low cultural levels to the in-migrants. Moreover, it may be argued that the migration to big cities constitutes an unfavourable selection with respect of cities of smaller size, and an impediment to their progress. Other problems of equal interest, which indicate the importance of the analysis of differences in educational levels of migrants and non-migrants, might be mentioned.

A method for estimating the effects of the differential characteristics of the migrant population on the receiving population, consists in measuring the changes in "composition" which take place in a given sex-age cohort in the course of an intercensal period. In the case of literacy, for instance, it may be assumed, without introducing any error of consequence, that a closed cohort consisting of individuals of a sufficient high age, say 20 or 25 years, will maintain through the years, a "composition" similar to that existing in a given moment. This implies the assumptions that from approximately that

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[1]/ It was found in the city of San Salvador, that the in-migrant population aged ten years and over was 16 per cent illiterate, while the non-migrant population was only 8 per cent illiterate. (Louis J. Ducoff, "The Migrant Population of a Metropolitan Area in a Developing Country: A preliminary report on a case study of San Salvador," IPU Conf. 1961, Paper No. 52).

age onwards, persons belonging to the illiterate segment do not change their status, or do so only to a very small extent, and that differential mortality, if it exists, does not have much effect on the "composition" according to literacy.

In the case of not-closed cohorts, where entries and withdrawls take place as a result of migration, the degree of literacy will be affected by: a) a different "composition" as far as literacy is concerned of the migrant population with respect to the initial cohort, and b) size of the migrant population in relation to the size of the original cohort.

To apply the described method it is sufficient to have data about the proportion of literate persons in two censuses, taken not too far apart, and the net migration "rate". [1]

The results of the application of this method to three big cities [2], Sao Paulo and Rio de Janeiro in Brazil and Caracas in Venezuela, are shown in Table 7. In all three cases the net number of migrants at the end of the intercensal period considered represented a high percentage of the population at the initial moment.

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[1] It may be shown that the proportion of literate persons in the migrant population (balance of in-migrants and out-migrants) may be estimated, with a high degree of precision, by the relation:
$$\frac{R^n (1+t) - R^0}{t}$$
where R^n and R^0 are, respectively, the proportion of literate persons at the end and at the beginning of the period of observation, while t is the migration "rate" calculated with respect to the initial population within the respective cohort.

[2] The data correspond to the "municipios" of Sao Paulo and Rio de Janeiro and the Federal District of Venezuela. Nearly the whole of the population of these areas is living in one urban conglomeration, the limits of which do not necessarily coincide with the official town limits.

In such conditions the "composition" of the migrant population has a considerable influence on the final "composition" of each cohort at the end of the period. In Sao Paulo the situation seems to be fairly clear: due to the migration which this city experienced, the degree of literacy of all cohorts from the age-group 10-19 years on, deteriorated. The male cohort aged 20 to 29 years shows the greatest decline (from 97.0 per cent to 90.5 per cent). It is also this cohort which shows the highest "rate" of migration. In relative terms, the decline in literacy of the female cohorts is more or less analogous: cohorts aged between 20 and 60 years are most affected (Cols. 5 and 6). The estimated degrees of literacy in the migrant population $\underline{1}/$ are shown in column 7. They are clearly below those of the initial situation in all cohorts and decline with age. The values of the degrees of literacy of the migrant population are maximum values and are based on the assumption that no improvements take place in the literacy of the initial cohort. However, census data for the whole country show that the degree of literacy of the population increased in the intercensal period, especially for males under 30 years of age in the initial cohorts (Cols. 1 and 2); for cities such as Sao Paulo, this tendency was probably even more pronounced than in the whole country.

The situation in Rio de Janeiro is different. The migrants, which were assimilated in the cohort aged 20-29 years at the initial moment, were probably characterized by a degree of literacy similar to that of the original cohort. The results of the cohort initially aged 10-19 years might be distorted by the improvement in literacy, which probably occurred, of the persons belonging initially to this cohort, which if true, means that at least the female in-migrants in this cohort were as a whole less literate than the original cohort. For the cohorts of 30 years and over the results should be considered with some reservations, as they seem to be very sensible when the rate of in-migration is low, as happens to be the case in these ages.

In Caracas the literacy in the cohorts initially aged 10-19 years and 20-29 years, and of these especially males, seems to have increased considerably. If one accepts the census results, it must be concluded that the migrant population $\underline{2}/$, especially the male in-migrants, had a higher, or at least similar percentage of literates as the initial population, that is, if it is assumed that no improvements in literacy have occurred in the latter one.

$\underline{1}/$ Percentage of literate persons in the total net number of migrants.
$\underline{2}/$ Includes inmigrants from other countries.

A more complete evaluation of the results for Caracas should take into account the changes in the percentage of literates, which took place, according to the census data in the whole country (Cols. 3 and 4 of Table 7). These changes are very important in the cohorts of males less than 30 years of age at the beginning of the period and generally for the population in both sexes aged less than 50 in 1941. [1]

Various of the literacy indices calculated for the migrant population show values near or over 100 per cent for the male migrants in Rio de Janeiro and Caracas. The inconsistency of these results may be attributed to various factors. The first one is the assumption that the degree of literacy of the initial cohort remains unaltered, which is not necessarily true, especially in the younger age-groups. Secondly, if the out-migrants from these cities include a higher proportion of illiterates than the remaining population which does not out-migrate, the effect is the same as an improvement in the degree of literacy of the non-migrants. Finally, a third factor, which may introduce errors, and which is inherent in the method and in the relative accuracy of the census statistics should be mentioned. If the rate of migration is low (for instance, less than 3 per cent) and the variations in the literacy not important, and probably affected by enumeration mistakes, obviously the result will be much more sensible to errors.

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[1] The data on literacy of both censuses are not completely comparable. It seems probable that the data on the literate population in 1950 include a number of semi-literates (who can only read and at most write their own name), a category which was tabulated separately for the 1941 census and excluded from the literate population. Nevertheless, the inclusion of this category in the data for 1941 would increase the degree of literacy of males with less than one point and that for females with less than two points. Thus this correction does not alter the previous results in a substantial way.

TABLE 1

VENEZUELA - PERCENTAGES OF MALES AND FEMALES BORN OUTSIDE THE "DISTRITO" WHERE ENUMERATED (IN-MIGRANTS) AND PERCENTAGES OF PERSONS ENUMERATED OUTSIDE THE "DISTRITO" WHERE BORN (OUT-MIGRANTS). 1950

	PERCENTAGE OF IN-MIGRANTS ACCORDING TO PLACE OF BIRTH A/							PERCENTAGE OF OUT-MIGRANTS ACCORDING TO "PLACE OF DESTINATION" B/					
	NATIVE POPULATION				FOREIGNERS								
	TOTAL		OTHER "DIS-TRITOS" OF THE STATE		OTHER STATES				TOTAL		OTHER "DIS-TRITOS" OF THE STATE		OTHER STATES	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
VENEZUELA (WHOLE COUNTRY)	27.9	28.2	9.8	10.2	18.1	18.0	5.5	2.7	29.4	28.9	10.3	10.4	19.1	18.5
FEDERAL DISTRICT	41.9	48.2	2.5	2.7	39.4	45.5	17.7	7.3	17.7	16.6	4.9	5.2	12.8	11.4
STATES WITH HIGH IN-MIGRATION C/	33.6	33.0	11.7	11.9	21.9	21.1	5.6	2.7	30.2	31.4	13.2	13.4	17.0	18.0
STATES WITH HIGH OUT-MIGRATION D/	18.1	17.9	12.3	12.7	5.8	5.2	1.4	0.6	31.4	29.4	9.6	9.9	21.8	19.5

A/ IN RELATION TO ENUMERATED POPULATION IN THE "DISTRITO" (AVERAGE OF BOTH SEXES).
B/ IN RELATION TO NATIVE POPULATION OF THE "DISTRITO" (EACH SEX SEPARATELY).
C/ UNWEIGHTED AVERAGES OF PERCENTAGES CORRESPONDING TO THE STATES OF ANZOATEGUI, CARABOBO, MIRANDA AND ZULIA.
D/ UNWEIGHTED AVERAGES OF PERCENTAGES CORRESPONDING TO THE STATES OF FALCON, LARA, MERIDA, SUCRE AND TRUJILLO.

TABLE 2

COLOMBIA AND VENEZUELA - PERCENTAGES OF MALES AND FEMALES BORN OUTSIDE THE "DISTRITO" WHERE ENUMERATED (IN-MIGRANTS) IN 6 "DISTRITOS" WITH AN URBAN AREA OF 100 000 OR MORE INHABITANTS - 1950 AND 1951

COUNTRY AND "DISTRITO" OF ENUMERATION	PERCENTAGES OF IN-MIGRANTS ACCORDING TO PLACE OF BIRTH A/							
	NATIVE POPULATION						FOREIGNERS	
	TOTAL		OTHER "DISTRITOS" OF THE "DEPARTAMENTO" (STATE)		OTHER "DEPARTAMENTOS" (STATES)			
	M	F	M	F	M	F	M	F
COLOMBIA: 1951								
BOGOTA	46.9	63.1	18.7	28.4	28.2	34.7	1.9	1.5
MEDELLÍN	45.5	58.6	38.5	51.2	7.0	7.4	0.7	0.6
BARRANQUILLA	39.5	50.4	9.6	12.1	29.9	38.3	2.2	1.4
VENEZUELA: 1950								
FEDERAL DISTRICT	41.9	48.2	2.5	2.7	39.4	45.5	17.7	7.3
MARACAIBO	35.1	36.2	14.9	15.9	20.2	20.3	6.1	3.4
BARQUISIMETO	35.6	42.4	24.7	29.7	10.9	12.7	3.4	1.8

A/ IN RELATION TO THE POPULATION ENUMERATED IN THE "DISTRITO" (AVERAGE OF BOTH SEXES).

TABLE 3

USA [A/], MEXICO [B/] AND VENEZUELA - INTERSTATE MIGRATION BY SEX AND AGE. 1940 - 1950

AGE IN 1950	MALES			FEMALES		
	VENEZUELA (1941-1950)	MEXICO (1940-1950)	U S A (1940-1950)	VENEZUELA (1941-1950)	MEXICO (1940-1950)	U S A (1940-1950)
	- 1 -	- 2 -	- 3 -	- 4 -	- 5 -	- 6 -
MIGRANTS (PERCENTAGE DISTRIBUTION)						
10 AND OVER	100.0	100.0	··	100.0	100.0	··
10 - 19	27.1	31.3	··	31.1	34.0	··
20 - 29	57.2	29.6	··	40.8	28.0	··
30 - 39	10.6	15.5	··	13.7	13.6	··
40 - 49	3.8	11.7	··	7.3	10.7	··
50 AND OVER	1.3	11.9	··	7.1	13.7	··
RATES [C/]						
10 AND OVER	9.7	5.2	3.9	9.3	5.5	3.8
10 - 14	{ 8.9	4.0	3.4	{ 10.3	5.3	3.4
15 - 19		6.5	4.5		7.3	3.4
20 - 24	{ 24.9	6.3	5.8	{ 16.8	7.5	5.3
25 - 29		6.9	6.1		5.5	6.7
30 - 34	{ 5.8	5.4	5.1	{ 6.9	4.4	5.1
35 - 39		4.7	4.1		4.6	4.1
40 - 44	{ 3.1	4.8	3.4	{ 5.7	4.3	3.3
45 - 49		4.4	2.9		4.6	2.7
50 - 54		4.1	2.6		4.5	2.4
55 - 59		4.5	2.3		5.3	2.3
60 - 64	{ 0.7	2.6	2.2	{ 3.6	3.3	2.5
65 - 69			2.3			2.7
70 - 74		{ 3.4	2.1		{ 3.9	2.1
75 AND OVER			1.4			1.5
INDICES [D/]						
BASE	100	100	100	100	100	100
10 - 14	{ 139	87	99	{ 143	109	100
15 - 19		141	131		150	100
20 - 24	{ 389	137	168	{ 233	154	156
25 - 29		150	177		113	197
30 - 34	{ 91	117	148	{ 96	90	150
35 - 39		102	119		94	121
40 - 44	{ 48	104	99	{ 79	88	97
45 - 49		96	84		94	80
50 - 54		89	76		92	71
55 - 59		98	67		109	68
60 - 64	{ 11	57	64	{ 50	68	74
65 - 69			67			80
70 - 74		{ 74	61		{ 80	62
75 AND OVER			41			44

[A/] DOROTHY SWAINE THOMAS, "AGE AND ECONOMIC DIFFERENTIALS IN INTERSTATE MIGRATION", POPULATION INDEX, OCT. 1958.

[B/] ROBERT G. BURNIGHT, "ESTIMATES OF NET MIGRATION, MEXICO, 1930-1950", I.P.U. CONFERENCE 1961, PAPER NO. 42.

[C/] NUMBER OF MIGRANTS SURVIVING IN 1950, IN RELATION TO THE MID-PERIOD POPULATION OF THE CORRESPONDING COHORT X 100.

[D/] THE BASE OF THE INDICES (= 100) IS THE AVERAGE OF THE RATES OF THE VARIOUS AGE GROUPS, WEIGHTED BY A NUMBER PROPORTIONAL TO THE AGE-INTERVAL. THE AGE GROUP 50 AND OVER WAS ASSUMED TO BE EQUIVALENT TO SIX QUINQUENNIAL AGE GROUPS.

TABLE 4

BRAZIL AND VENEZUELA - INTERSTATE MIGRATION BY SEX AND AGE IN THREE STATES IN INTERCENSAL PERIOD
1940 - 1950

AGE IN 1950	MALES			FEMALES		
	SAO PAULO [A/] (B R A Z I L) (1940 - 1950)	PARANA [A/]	ZULIA (VENEZUELA) (1941-1950)	SAO PAULO [A/] (B R A Z I L) (1940 - 1950)	PARANA [A/]	ZULIA (VENEZUELA) (1941-1950)
IN-MIGRANTS (PERCENTAGE DISTRIBUTION)						
10 AND OVER	100.0	100.0	100.0	100.0	100.0	100.0
10 - 19	30.8	33.7	32.6	37.0	37.4	33.6
20 - 29	52.3	30.2	51.5	42.3	29.1	40.2
30 - 39	13.4	18.1	8.3	13.6	17.8	12.5
40 - 49	3.5	9.6	6.1	5.2	9.4	5.9
50 AND OVER	[B/]	8.4	1.5	1.9	6.3	7.8
RATES [c/]						
10 AND OVER	5.4	30.2	14.4	4.2	26.2	15.6
10 - 19	5.4	30.6	15.8	4.9	28.2	17.5
20 - 29	11.1	36.2	29.2	6.7	28.9	24.6
30 - 39	4.1	30.9	6.6	3.1	26.4	11.4
40 - 49	1.6	25.1	6.8	1.9	22.8	7.7
50 AND OVER	- 1.7	20.4	1.6	0.7	15.9	7.9
INDICES [c/]						
BASE	100	100	100	100	100	100
10 - 19	173	116	175	183	128	144
20 - 29	355	138	323	251	131	203
30 - 39	131	118	73	116	120	94
40 - 49	51	95	75	71	104	63
50 AND OVER	0	78	18	26	72	65

A/ ESTIMATED ACCORDING TO THE METHOD DESCRIBED IN FOOTNOTE 5, PAGE 3.
B/ NEGATIVE VALUE REPRESENTS 3.5 PER CENT OF THE IN-MIGRANTS IN THE AGE GROUP 10 - 49 YEARS.
C/ SEE DEFINITIONS IN FOOTNOTES C AND D OF TABLE 3.

TABLE 5

BRAZIL, COLOMBIA AND VENEZUELA - INTERSTATE MIGRATION BY SEX AND AGE IN 5 STATES IN INTERCENSAL PERIODS. 1938 - 1951
- NET MIGRATION -

AGE IN 1950	MALES					FEMALES				
	SAO PAULO	PARANA	CUNDINA- MARCA	VALLE DEL CAUCA	ZULIA	SAO PAULO	PARANA	CUNDINA- MARCA	VALLE DEL CAUCA	ZULIA
	(B R A Z I L)		(C O L O M B I A)		(VENEZUELA)	(B R A Z I L)		(C O L O M B I A)		(VENEZUELA)
	(1940-1950)		(1938-1951)		(1941-1950)	(1940-1950)		(1938-1951)		(1941-1950)

NET-MIGRATION (PERCENTAGE DISTRIBUTION)

10 AND OVER	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10 - 19	13.1	32.9	46.4	37.9	31.4	20.1	38.3	47.0	41.4	38.2
20 - 29	77.7	28.5	31.6	32.8	65.2	71.9	28.5	31.7	27.8	49.9
30 - 39	9.2	17.9	15.6	14.7	} 3.4	6.8	17.0	13.7	13.4	6.8
40 - 49	A/	10.6	6.4	8.0		1.2	9.6	4.9	8.1	} 5.1
50 AND OVER	B/	10.1	C/	6.6		D/	6.6	2.7	9.3	

RATES E/

10 AND OVER	2.1	30.9	7.8	36.5	8.6	1.2	26.5	11.6	31.5	9.4
10 - 19	1.0	30.6	11.7	44.6	9.1	0.8	29.2	18.1	39.3	12.0
20 - 29	7.2	35.1	10.9	51.5	22.0	3.3	28.7	16.3	37.1	18.4
30 - 39	1.2	31.4	6.8	28.4	0.3	0.5	25.6	8.7	23.6	3.7
40 - 49	- 0.6	28.4	3.9	22.5	6.2	0.1	23.7	4.6	23.3	1.3
50 AND OVER	- 2.8	25.1	- 0.3	17.2	- 4.0	- 0.2	16.6	1.9	20.5	2.1

INDICES E/

BASE	100	100	100	100	100	100	100	100	100	100
10 - 19	75	107	246	157	169	119	130	237	149	201
20 - 29	537	122	229	182	410	492	128	214	141	309
30 - 39	89	109	143	100	6	75	114	114	89	62
40 - 49	0	99	82	79	115	15	106	60	88	22
50 AND OVER	0	88	0	61	0	0	74	25	78	35

A/ NEGATIVE VALUE REPRESENTING 3 PER CENT OF NET MIGRATION IN AGES 10 - 39 YEARS.
B/ NEGATIVE VALUE REPRESENTING 13 PER CENT OF NET MIGRATION IN AGES 10 - 39 YEARS.
C/ NEGATIVE VALUE REPRESENTING 0.6 PER CENT OF NET MIGRATION IN AGES 10 - 49 YEARS.
D/ NEGATIVE VALUE REPRESENTING 1.4 PER CENT OF NET MIGRATION IN AGES 10 - 49 YEARS.
E/ FOR DEFINITIONS SEE FOOTNOTE C AND D, TABLE 3.

TABLE 6

BRAZIL, COLOMBIA AND VENEZUELA - MIGRATION BY SEX AND AGE IN 6 BIG CITIES IN THE INTERCENSAL PERIOD. 1938 - 1951

	NET-MIGRANTS												IN-MIGRANTS A/			
	MALES						FEMALES						MALES		FEMALES	
AGE IN 1950	SAO PAULO	RIO JANEIRO	BOGOTA	CARACAS	MARA-CAIBO	BARQUI-SIMETO	SAO PAULO	RIO JANEIRO	BOGOTA	CARACAS	MARA-CAIBO	BARQUI-SIMETO	RIO JANEIRO	CARACAS	RIO JANEIRO	CARACAS
	(BRAZIL)	(COL.)	(VENEZUELA)				(BRAZIL)	(COL.)	(VENEZUELA)				(BRAZIL)	(VEN.)	(BRAZIL)	(VEN.)
	(1940-1950)	(1938-51)	(1941-1950)				(1940-1950)	(1938-51)	(1941-1950)							
10 AND OVER	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10 - 19	25.4	23.8	49.9	38.0	29.2	33.8	29.2	34.4	54.4	41.8	32.7	41.5	26.1	37.1	35.0	41.7
20 - 29	39.0	60.1	33.9	49.5	35.9	27.6	35.8	48.4	27.2	38.4	31.2	24.5	56.9	50.3	47.5	38.7
30 - 39	19.6	12.7	8.1	6.2	17.0	18.1	15.6	12.1	6.3	7.8	16.2	13.3	11.9	6.2	11.7	7.6
40 - 49	8.2	1.8	3.6	2.8	9.2	11.5	9.2	4.3	5.1	4.8	9.3	9.8	2.3	2.7	4.0	4.9
50 AND OVER	7.8	1.6	4.5	3.5	8.7	9.0	-10.2	0.8	-7.0	7.2	10.6	10.9	2.8	3.7	1.8	7.1

RATES B/

10 AND OVER	35.4	14.9	44.4	31.8	52.8	47.4	35.7	14.7	49.8	30.2	49.4	44.8	14.3	30.1	14.2	29.1
10 - 19	40.8	16.1	71.6	45.5	66.0	58.3	47.1	22.9	90.8	50.9	61.3	70.9	17.0	42.1	22.4	48.9
20 - 29	54.8	38.4	61.4	59.1	70.2	52.0	50.5	30.5	57.8	46.6	60.3	43.7	35.0	56.9	28.8	45.1
30 - 39	35.5	9.3	17.8	9.5	47.9	41.1	28.1	9.1	16.0	12.0	45.4	30.9	8.4	9.0	8.4	11.4
40 - 49	18.9	1.7	12.5	6.7	37.9	41.4	22.6	4.4	20.1	12.0	36.6	35.3	2.0	6.7	3.9	11.7
50 AND OVER	15.5	1.2	17.4	8.2	33.1	31.9	19.9	0.6	24.2	11.7	29.1	28.7	2.1	8.2	1.2	11.1

INDICES B/

BASE	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10 - 19	145	163	233	219	126	141	159	233	247	228	148	186	173	212	234	228
20 - 29	195	389	199	285	158	126	170	311	157	208	145	115	357	286	300	210
30 - 39	126	94	58	46	108	100	95	93	44	54	109	81	86	45	88	53
40 - 49	67	17	41	32	85	100	76	45	55	54	88	93	20	34	41	54
50 AND OVER	55		57	39	74	77	67	6	66	52	70	75	21	41	13	52

A/ ESTIMATED ACCORDING TO THE METHOD DESCRIBED IN FOOTNOTE 5 PAGE 9.
B/ FOR DEFINITIONS SEE IN FOOTNOTES C AND D IN TABLE 9.

TABLE 7

PERCENTAGES OF LITERATES IN THE TOTAL POPULATION AND ESTIMATES OF THE LITERACY RATES OF THE MIGRANT POPULATION IN THREE BIG CITIES OF LATIN AMERICA IN A PERIOD BETWEEN APPROXIMATELY 1940 AND 1950

AGE	PERCENTAGES OF LITERATES IN THE POPULATION OF:												
	BRAZIL		VENEZUELA		"MUNICIPIO" OF SAO PAULO			"MUNICIPIO" OF RIO DE JANEIRO (D.F.)			FEDERAL DISTRICTS OF VENEZUELA		
					ENUMERATED POPULATION		MIGRANTS	ENUMERATED POPULATION		MIGRANTS	ENUMERATED POPULATION		MIGRANTS
	1940	1951	1941	1950	1940	1950		1940	1950		1941	1950	
	- 1 -	- 2 -	- 3 -	- 4 -	- 5 -	- 6 -	- 7 -	- 8 -	- 9 -	- 10 -	- 11 -	- 12 -	- 13 -
MALES													
10 - 19	42.3	47.3	41.9	53.4	94.5	92.8	-	87.7	89.0	-	79.3	85.6	-
20 - 29	51.6	57.4	48.6	63.4	97.0	92.8	87.0 [a]	89.3	91.1	98.4	83.9	89.7	97.6
30 - 39	54.0	57.0	46.0	58.1	92.0	90.5	75.0	88.0	90.4	101.5	83.7	87.9	103.4
40 - 49	51.0	54.7	42.0	51.0	88.3	88.0	68.3	85.2	88.7	135.0	} 78.0	85.0	92.8
50 - 59 [b]	49.1	52.0	40.3	44.2	82.5	83.7	59.8	81.4	86.2	173.3		} 78.3	} 80.0
60 AND OVER [b]	43.1	48.0	39.7	40.9	71.7	76.3	26.8	76.8	81.6	95.1			
70 AND OVER	-	41.2	-	40.4	-	68.5	16.6	-	77.1	123.5	-		
AGE UNKNOWN	56.2	36.8	32.5	40.4									
FEMALES													
10 - 19	42.2	48.5	42.6	56.2	92.8	91.3	-	85.2	87.0	-	77.5	83.6	-
20 - 29	41.0	49.4	38.0	51.3	85.5	86.2	76.9	81.3	84.8	83.5	73.1	79.2	80.8
30 - 39	36.7	43.4	33.8	41.8	76.9	79.2	59.2	77.0	81.4	89.8	72.3	75.2	82.8
40 - 49	31.8	37.3	33.8	36.7	67.6	70.2	43.2	70.2	75.9	50.0	} 70.7	71.5	68.8
50 - 59 [b]	30.0	32.6	35.7	37.4	59.3	60.1	29.4	65.8	69.1	14.1			
60 AND OVER [b]	25.7	30.5	35.3	38.0	50.9	53.6	25.6	60.4	65.3 (-)375.0			} 72	} 77.4
70 AND OVER	-	26.3	-	37.6	-	49.8	34.9	-	61.9	147.0			
AGE UNKNOWN	44.2	25.4	21.2	38.5									

[a] IT HAS BEEN ASSUMED THAT THE INITIAL COHORT AGED 10 - 19 YEARS IN 1940, HAD IN 1950, WHEN THEY WERE IN AGES 20 - 29, THE SAME PERCENTAGE OF LITERATES AS THE COHORT AGED 20 - 29 IN 1940, THAT IS THE PERCENTAGE IN THE COHORT 20 - 29 IN 1950 WAS ASSUMED TO BE 97.0 PER CENT, INSTEAD OF 94.5 PER CENT. IF THE LATTER PERCENTAGE WERE ADOPTED, THE PERCENTAGE LITERATE MIGRANTS IN THIS COHORT WOULD BE 90.4 INSTEAD OF 87.0 PER CENT.

[b] 60 - 69 YEARS IN 1950.