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**SPATIAL DISTRIBUTION OF THE POPULATION, INTERNAL MIGRATION
AND DEVELOPMENT IN LATIN AMERICA AND THE CARIBBEAN***

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A. INTRODUCTION AND STRUCTURE OF THE DOCUMENT

Latin America and the Caribbean has undergone significant transformations in the last 30 years. Many of the changes relate to the territorial distribution and mobility of the region's population. This document describes those changes and ties them in with the socioeconomic, political and cultural shifts experienced by the region.

The document is structured around certain hypotheses that are common in the literature (ECLAC, 2007). Each section aims to provide evidence for a broad assessment of the validity of each hypothesis. The first three hypotheses are concerned with the spatial distribution of population, while the final six deal with internal migration:

1. Urbanization in the region is not a statistical fiction, although it is less directly linked to the process of economic and social development

2. The change in the development model since the 1980s revalues the countryside over cities, which could lead to rural areas becoming more attractive

3. The action of various "deconcentration" forces has made the demographic dynamism of large cities less significant than that of medium-sized cities. The urban system of the region's countries should be reversing its polarization and diversifying as a result

4. The economic and social development process should push up migration indices

5. Internal migration has an increasingly complex relationship with development at the subnational development level. Although flows can still be predicted on the basis of subnational differences in development, there are several exceptions that cast doubt on the strength of that relationship.

6. Given the predominant direction of migratory flows (see previous hypothesis) and selectivity in terms of age group and level of schooling, migration is unlikely to help reduce territorial inequalities

7. Migration is highly likely to contribute to the creation of territorial poverty traps in areas that have traditionally been socioeconomically disadvantaged

8. Rural-to-urban migration continues to erode population growth in the countryside, while playing an increasingly smaller role in the growth of cities

9. The region's large cities register real net emigration, rather than merely being part of a "concentrated deconcentration".

Following a review of those hypotheses, the document concludes by outlining the policy implications of the findings contained in the previous sections.

1. Is Latin America's urbanization real?

Latin America and the Caribbean[1] is the world's most urbanized developing region, with an urban percentage of 77.4% in 2005, which is only surpassed by North America (80.7%) and is higher than the figure for Europe (72.2%) (United Nations, 2006).

Expressions such as over-urbanization and hyper-urbanization have been used to describe the region's high level of urbanization minus the level of economic and social development typical of industrialized countries (Rodríguez & Martine, 2008). Nonetheless, in purely demographic terms, Latin American urbanization is undeniable and in no case could be termed a "statistical fiction" resulting from the lack of an official definition of "urban" in the region. The evidence for this comes from DEPUALC database (www.eclac.cl/celade/depualc), which allows identify unquestionably urban agglomerations to avoid problems of consistency in comparisons (Montgomery et al., 2004).

The region has a much higher proportion of the total population living in cities of 500,000 or more inhabitants than Europe (table 1). Calculations for a group of nine countries in the region with data from the 2000 round of censuses,[2] indicate that 65% of the region's total population and 81.5% of the urban population were living in cities with 20,000 or more inhabitants (CELADE - Population Division of ECLAC, 2007). There is considerable heterogeneity among countries behind these "regional" figures. The diversity follows a relatively familiar pattern: countries with a higher level of human development (Argentina, Chile and Uruguay) tend to have higher proportions of population living in cities.[3] One exception is Costa Rica, which has a lower percentage of population living in cities than would be expected given its high human development index (table 2).

2. Change in the development model: a demographic boost for the countryside?

Up to the 1980s, the prevailing development strategy in the region (promoted by ECLAC) was known as Import Substitution Industrialization (ISI). It was attributed with a pro-urban bias, as it was geared towards promoting industry and the significant role to be played by the State (ECLAC, 2005a). When the development strategy was changed - to one that was more open to the outside world, based on the exploitation of natural resources and more influenced by market forces - there were predictions of strong productive buoyancy in rural areas, which might in turn have recovered their retentive capacity and possibly even become a pole of attraction for the first time in centuries (Guzmán et al., 2006; Rodríguez, 2002).

Two types of evidence lead to the conclusion that the new development model has not led to a recovery of dynamic demographics in the countryside. The first relates to the process of urbanization, which has remained a driving force. The rate of urbanization, or the average annual rate of increase of the urban percentage, has definitely been dropping as the region nears an urban percentage of 100%: from 1.6% in the period 1950-1960 to 0.5% at present (table 3). However if this urbanization rate is divided by the rural percentage, the pace of urbanization has only dropped off slightly. The second type of evidence is directly related to the rural population, which has been shrinking in absolute terms since 1990. Given this population's positive natural growth, there seems to be significant net rural emigration. Without presenting specific evidence on the scale of net emigration from the countryside (as this will be provided in a subsequent section), it is therefore possible to conclude that the new development model has not increased the rate of population growth in rural areas.

This should come as no surprise, as the region had already lived through agricultural modernization processes that resulted in migratory outflows between 1940 and 1980 (Alberts & Villa, 1980). Although there has been an agricultural revival since the mid-1980s — expressed in a slight increase in agricultural value added within total GDP (ECLAC, 2005b) — this has mainly been based on large farms and forestry concerns that tend to push out traditional farming. Furthermore, the labour demand of these concerns is highly seasonal, and is therefore often met by urban workers from faraway cities (ECLAC, 2005b).

Thus there are no signs of counterurbanization in the region, nor does this seem likely to be triggered by productive causes. As in Europe, if counterurbanization were to occur it would be the result of housing-related forces promoted by technological progress, improved infrastructure and connectivity, and changes in the population structure and people's purchasing power (Gans, 2007; Ferras, 2007). In other words, any eventual return to the countryside would not represent a return to agriculture, but rather a decision to combine the quality of life in rural settings with the employment, educational and leisure opportunities in nearby urban areas. What is more, it is difficult to conceive of a high quality of life in the region's rural areas, as long as social indicators there remain below those for urban settings (ECLAC, 2007 and 2005b).

3. Are urban areas becoming deconcentrated?

Historically speaking, urbanization in Latin America was based around large cities characterized by population growth considerably above the national average and the urban growth rate, and an unordered physical expansion (Guzmán et al., 2006). Indeed, up until the 1970s, urbanization and concentration in the largest city (or the two largest cities in countries such as Brazil, Ecuador and Honduras) were overlapping phenomena in most of the region's countries. As in the case of urbanization, the inward development model and overinvestment in the main city were held responsible for the fact that regional urbanization was concentrated in one or two cities (Alberts & Villa, 1980). The change of development model therefore generated expectations of deconcentration (Pinto da Cunha, 2002). This combined with several other processes under way since the 1980s, namely decentralization, industrial relocation, downsizing of the public apparatus (concentrated in the main city), signs of crises in major cities and a series of public policies aimed at promoting such deconcentration (ECLAC, 2005a; Dupont et al., 2002).

The evidence available suggests that these factors have had an impact, as the trend for higher demographic dynamism in the main city is on the wane. Although it is not yet clear whether large cities account for a smaller proportion of the total population, they are definitely losing significance in terms of urban areas. Monitoring of the primacy index[4] in the last intercensal period shows that it increased in just two countries, while dropping in the vast majority of cases, sometimes significantly and at times reversing the historic upward trend of the main city's power of attraction (figure 1).

Despite this, the traditional pattern of urbanization concentrated in one or two major cities has had permanent effects in the region including the considerable number of megalopolises that are now located here,[5] the high primacy indices of many of region's countries on a worldwide scale, and the large proportion of the population that lives in cities with over one million inhabitants.

In order to study the regional system of human settlements in more detail, several size categories were created (see table 4 and figures 2 and 3).[6] Cities with 20,000 or more inhabitants were counted individually.[7] Smaller urban areas are added together rather than being counted individually. The population in places with fewer than 2,000 inhabitants or dispersed populations are counted as residual.[8]

This information was used to create table 4, which shows the number of areas with over 20,000 inhabitants by census and size category. Regional urbanization has clearly involved a striking expansion and diversification of the city system, as between 1950 and 2000 the region went from 272 to 1,528 cities with more than 20,000 inhabitants. This more complex urban network forms a social and territorial basis

that is more conducive to regional development, given the long-term disadvantages associated with top-heavy urban systems (Davis & Henderson, 2003). Although the number of "millionaire" cities also increased (sevenfold between 1950 and 2000), the expansion suddenly stopped in the 1990s. Furthermore, the limited number of cities in the next size category down is such that no major increases are expected in the present decade. Medium-sized intermediate cities (50,000 to 500,000 inhabitants) and small intermediate cities (20,000 to 50,000 inhabitants) are the fastest growing category in terms of node multiplication, which confirms the tendency towards a more robust and complex urban system.

Advancing urbanization and the rise in the number of nodes in each size category of the urban system have increased the relative proportion of all categories within the total population (figure 2). "Millionaire" cities more than doubled their share to reach extraordinary proportions on a worldwide scale: one in every three of the region's inhabitants live in such a city. Having said that, figure 2 shows that the population momentum of these cities slowed significantly in the 1990s. The fragmentary evidence from the current decade (from counts and censuses carried out around 2005) suggests that the growth rate has slowed even further. In contrast, the more recent situation shows expanded representation for intermediate cities, which ties in with the hypothesis of diversification (now considering the population instead of the number of urban centres). Lastly, the smallest category of the urban hierarchy is also highly relevant, with an abundance of places with between 2,000 and 20,000 inhabitants that are often more similar and more closely connected to the countryside than to the rest of the city system.

The main finding of a study of the internal structure of the urban system (strictly speaking areas with 2,000 or more inhabitants, see figure 3) was the fast growth of intermediate cities, especially in the last 30 years. Indeed, the proportion of the urban system represented by "millionaire" cities has remained stable at 40% since 1970, while the share of small locations (fewer than 20,000 inhabitants) has also stabilized at around 20% following two decades of decline (such places represented 25% of the urban population in 1950). This means that 40% of the urban population lives in intermediate cities (subdivided into large intermediate, medium-sized intermediate and small-sized intermediate).

In summary, although urbanization in the region is naturally concentrated in cities, the form of concentration is shifting to become more diversified. This is because intermediate cities are growing more quickly than "millionaire" cities. That trend may well be due to a difference in natural growth or migratory growth, which is key for the purposes of analysis and policymaking. Later in the document, this point will be addressed in more detail to provide a definitive answer on the migratory attraction of countries' largest cities and particularly of megalopolises.

C. INTERNAL MIGRATION AND DEVELOPMENT IN LATIN AMERICA AND THE CARIBBEAN: HYPOTHESES AND EVIDENCE

1. *Is internal migration in the increase?*

Since the work of Ravenstein (1885), the prevailing idea has been that material progress stimulates migration by promoting the expansion of means of transport and a reduction in the costs of travel (Aroca, 2004; Greenwood & Hunt, 2003; Cardona & Simmons, 1975).

Although this idea remains hegemonic (Van der Gaag & van Wisen, 2001), the work of Zelinsky (1971) cast some doubts over the predictability of internal migration. These doubts have been strengthened by new arguments such as: (a) development tends to reduce disparities between subnational areas, thereby eroding the main trigger for internal migration; (b) development brings down the costs of mobility in general, which may result in internal migration being replaced by international migration or daily

commuting; (c) development raises family income and facilitates homeownership (which is a strong factor in territorial fixation); (d) current development is conducive to the emergence of virtual spaces that inhibit migration by making it possible to "be there without being physically present"; (e) development is concomitant with urbanization, with the latter leading to the exhaustion of rural-to-urban migration and a subsequent reduction in migratory intensity (Van der Gaag & van Wisen, 2001). Given that the long-term trend of migratory intensity is currently the subject of much debate, evidence is required to settle the matter.

Table 5 shows levels and proportion trends for migrants according to type of migration. Although the levels seem high at first glance,[9] they are considerably lower than in the United States. In terms of the trends, the region seems to display a stable or slightly increased stock of internal migrants, but with a low rate of internal mobility (which is highly relevant in terms of trends). Given that this result is strongly influenced by Brazil and Mexico, figure 4 provides the results of migration between major administrative divisions in the past five years for individual countries. These data show a downward trend in the internal mobility rate in most countries.

This unexpected downward trend can be explained by the above-mentioned arguments, which will require subsequent research if they are to be empirically verified. What can be ruled out is that the trend is due to a reduction in territorial inequalities within countries, as these remain extremely high in the region (ILPES, 2007).

That finding does not imply that there is no link between the level of development and internal mobility. In fact, a cross-section analysis shows that there is a positive and statistically significant relationship between the two, as less developed countries tend to have considerably lower levels of internal mobility. Thus, although development may cease to stimulate internal migration once the former reaches a certain threshold, the figures nonetheless generally support the suggestion that development facilitates mobility within a country's borders.

> *2.   Do internal migratory flows follow the expected pattern from less developed areas to more developed areas?*

Territorial inequalities are the main trigger for migration (Lall, Selod & Shalizi, 2006; Lucas, 1997), and the search for better conditions in areas with greater opportunities therefore remains the main cause of internal migration. This forms the basis for the dominant hypothesis within the literature on the direction of migratory flows: movement should take place from areas with less favourable living conditions to those with better living conditions. Although this might sound obvious, the notion of "living conditions" is far from simple, and actually depends on individuals and their particular way of assessing the different dimensions of their lives and how these may be able to develop in the location of origin or in alternative destinations.

Traditionally, people (and researchers) have given priority to employment, particularly in terms of jobs with higher incomes. However, there are currently many more important dimensions, such as education and housing. In fact, housing (including the accommodation, location and quality of life) is the most relevant factor in intra-urban migration, suburbanization and counterurbanization (ECLAC, 2007). Increasingly heterogeneous migratory patterns therefore means a diversification of determining factors, which casts doubt on the usefulness of single and universal theoretical and analytical models to explain migration.

As far as large-scale migration between major administrative divisions is concerned, differences in socioeconomic development (expressed in wage levels and indices of well-being) still appear to be the main determining factor of migratory flows. Flows would therefore be expected to be from less

developed major administrative divisions (lower wages and living conditions) towards more developed major administrative divisions (with higher wages and better living conditions).

The evidence available shows that in most of the region's countries there is a statistically significant positive relationship between the level of subnational development (according to the human development index (HDI) calculated by the national offices of the United Nations Development Programme (UNDP) for the divisions in their respective countries) and the migratory attraction (measured by the net rate of migration) (see table 6).

However, the correlation is weak and in many countries is not significant, which means that a more detailed examination is required. The quadrants in diagram 1 go some way towards this, as they show major administrative divisions by their migratory attractiveness[10] in the 1990 and 2000 rounds of censuses. Without analysing divisions on a case-by-case basis, these quadrants show a group of them that does not fit in with the general relationship between development and attractiveness. Several of these divisions are exceptional due to systematic factors, which make it possible to formulate theoretical predictions and analytical models using special conceptual frameworks. The anomalous major administrative divisions whose migratory patterns may be due to factors other than their level of development include: (a) colonization regions; (b) regions posting recent economic progress; (c) "metropolitan" regions undergoing suburbanization and/or deconcentration; and (d) regions close to metropolitan areas undergoing suburbanization.

Until the 1980s, the attraction of colonization regions lay mainly in policies promoting migration to such regions (ECLAC, 2007; CELADE, 1984). Nowadays, however, there are no such policies, which may be due to public-sector funding restrictions, negative assessments of their results, criticism of their limited consideration of human rights or increased awareness of their adverse effects on the environment. Although in some countries the disappearance of colonization programmes resulted in net emigration from the areas concerned (as in the region of Aysén in the south of Chile and the Beni region in Bolivia (see map 2)), other areas remained attractive, such as eastern Bolivia, Ecuador and Paraguay, the Brazilian Amazon region and the extreme south of Argentina (map 2). This suggests that an abundance of natural resources (particularly land) and the expectations of fast profit can supersede more traditional pull factors such as average wages and living conditions.

In regions posting recent economic progress, wages and living conditions may even be lower than the nationwide average because their initial levels were low. Such regions, however, have high rates of job creation and good prospects that generate expectations of individual and regional advancement. The productive and therefore also migratory dynamics of these regions are closely linked to the world economy, as they are usually areas buoyed by the successful role they play on the global markets, either in primary products (fish farming and forestry in the Lake Region Chile), tourism (in the state of Yucatán, Mexico), industry (province of San Luis, Argentina) or remittances (province of Azuay, Ecuador) (see maps in annex). In the future, the economic buoyancy of these major administrative divisions may result in high salaries and good living conditions there, in which case they will cease to be anomalous poles of attraction. However, as their attraction is critically dependent on world markets, their possible future status as "developed" areas could become anomalous again in the event of world recession for the opposite reason: they would be wealthy regions in crisis and would therefore be sources of emigration.

The other two types of anomalous major administrative divisions represent two sides of the same underlying process: the suburbanization of metropolises. The lack of land for housing in central areas means that cities expand out horizontally. This is a complex process that can manifest itself in many different ways. Historically in Latin America, it has manifested itself in the rapid expansion of the outskirts of metropolises where cheaper or more easily available land for occupation has attracted mainly poor immigrants from other parts of the country or from within the metropolis. Thus, an effect of

saturation-suburbanization has resulted in many major administrative divisions that include the main city (City of Buenos Aires in Argentina, Federal District in Mexico, Montevideo in Uruguay, Capital District in the Bolivarian Republic of Venezuela) registering net emigration, despite their having the best indicators for income and living conditions in their respective countries (see maps in annex). That pattern is largely due to an extrinsic factor, namely that those divisions are relatively small. Although the cities within those major administrative divisions only accounted for a small part of their total area in the early twentieth century, the divisions became saturated due to the rapid growth of cities as the century progressed, and the urban sprawl spilled out into neighbouring divisions. This transformed the latter into very strong poles of attraction (see maps), which is in contrast to their rather low standards of living and income.

As a result, any consideration of migratory patterns associated with metropolitan major administrative divisions must also include other divisions touched by the urban sprawl of the metropolis. On an operational level, this implies carrying out a more disaggregated analysis of migration (for instance at the municipal level) - an exercise that is presented later in the document. More specifically, that exercise will assess whether metropolises register emigration even after the effect of suburbanization has been controlled for.

In summary, although better living conditions remain one of the most powerful magnets to migrants, they may be offset by a potential mismatch between those conditions (resulting from a long process), economic buoyancy (more volatile and partly independent from living conditions) and the possibility of enjoying those advantages without living in places in high demand (due to suburbanization). In addition, the driving forces of production, which operate as part of globalization and the new economy of services and technology, have the capacity to change the attractiveness of areas according to many diverse and emerging factors.

3. Does internal migration reduce or deepen territorial disparities?

The first impact that migration has on origin and destination areas is on the volume of population. Generally speaking, this tends to promote convergence between subnational areas in terms of demographic growth, as poles of attraction are usually the more developed regions that are also more advanced in terms of demographic transition and therefore have lower natural growth. However, migration also has a qualitative impact. Depending on their characteristics, migrants can alter the profile of the population in both origin and destination areas. Migration therefore has a considerable effect on sociodemographic disparities between subnational areas. For instance, if women migrate to areas with high indices of masculinity, subnational sex discrepancies in the population will be reduced.

Given previous evidence for an ongoing positive relationship between development and migratory attraction, and considering the historic selectivity of Latin America's internal migration in terms of age, gender and level of schooling (Rodríguez, 2004a) (the validity of which will be examined later), internal migration should be broadening territorial gaps in population structure by age, sex and level of education. This is because age and sex structures have cumulative disparities as a result of prior migration and the process of economic and social development. More developed regions therefore have a greater proportion of women and higher levels of education. As such areas remain net recipients of mainly female migrants and people with above-average education, migration will deepen territorial disparities in terms of gender and schooling. In terms of age structures, migration could be expected to widen disparities in the burden or upbringing, as net emigration from less developed areas tends to involve young people, thereby pushing up the proportion of children, which already tends to be higher in such areas as they are at an earlier stage of demographic transition.

The procedure for empirically assessing this hypothesis was devised by CELADE and has been included in many publications since 2004 (Rodríguez, 2007, 2004a and 2004b; ECLAC, 2007). The main idea is to take the matrix of flow indicators (from the recent migration matrix), compare the marginals[11] and use the difference to deduce if migration had a (net and exclusive) incremental or reductive effect on the attribute. As it is beyond the scope of this document to study the situation of every major administrative division, a synthetic indicator was used to show how individual effects impact on territorial disparities. This indicator is the simple correlation coefficient between the net and exclusive effect of migration and the initial level of the attribute affected (masculinity, age structure, level of schooling). If there is a positive correlation between the net and exclusive effect of migration and the initial value of the attribute, then migration would be deepening territorial gaps, as divisions with high initial levels of the attribute (five years before the census) would have higher increases in the attribute because of migration. If the correlation is negative, on the other hand, migration would be closing territorial gaps. Table 7 shows these correlations for selected countries in the region (according to the availability of data needed to carry out the calculations).

First, in the vast majority of countries migration between major administrative divisions generally widens territorial disparities in the proportion of children. The prevalence of positive coefficients suggests that those divisions with the highest initial proportion of children (typically the poorest areas) tend to post the highest average increases in that proportion due to migratory exchanges with other divisions. The underlying mechanism is indirect, as it is the mass exit of young people, rather than the arrival of children, that increases the proportion of children under the age of 15 in such divisions.

Migration between major administrative divisions also accentuates disparities in the territorial distribution of the population by sex. This distribution has been shaped by migratory flows, particularly those from rural to urban areas, and has the following basic imbalance: a majority of women in the most urbanized major administrative divisions that have traditionally been poles of attraction. According to the ratios included in table 7 (most of which are significant to a significance level of 95%), recent migration has widened this gap, in that divisions with higher initial masculinity have increased that proportion due to the net and exclusive effect of migration.

Lastly, the ratios relating to human resources training are less conclusive. Although the mainly negative coefficients suggest that migration helps to reduce territorial disparities in terms of education, these are only significant to a significance level of 95% in three cases, and one case has a positive ratio. In any event, the evidence does not suggest that migration may contribute to a more balanced territorial distribution of skilled human resources.

4. *Does emigration from chronically poor areas worsen the situation there?*

Population-displacing areas of chronic poverty tend to be territorially grouped together in one or more vast socioeconomically disadvantaged subnational areas (see maps in annex). Typical examples include the north west of Argentina, the north east of Brazil, western upland Bolivia ("Altiplano"), southern central Chile, western Cuba and the south of Mexico.

Table 8 shows six countries where the depressed areas are relatively easy to identify. Results are broken down by each political and administrative division within the areas of net emigration according to the most recent census (i.e. most divisions in those areas). Migration systematically has an adverse effect on the age structure, as it tends to raise the proportion of children and older adults at the expense of the working-age population. As a result, emigration increases the demographic dependence of the population of such depressed areas, which aggravates their already difficult situation even more. In addition, in the large majority of divisions studied, migration tends to reduce the average level of schooling, thereby eroding the limited human capital of those areas.

While emigration may provide an escape for those migrating, it worsens the situation for the areas themselves. This has a negative effect on those who remain, thereby turning the area into a territorial poverty trap.

5. *Is the rural exodus an ongoing phenomenon?*

Although a previous part of the document gave a tentative answer to this question on the basis of advancing urbanization, this section bases its response specifically on the trends of rural-to-urban migration. In the 2000 round of censuses, only four of the region's countries (Brazil, Nicaragua, Panama and Paraguay) included questions that make it possible to directly estimate rural-to-urban migration and therefore to identify the four potential flows between the two areas. Table 9 summarizes those results: with the exception of Nicaragua (where the rural-to-urban flow was by far the strongest),[12] migration between urban areas was the predominant flow. That was to be expected given the region's high levels of urbanization.

Having said that, the figures show that there are no counterurbanization processes under way, as there is still a net transfer or population from the countryside to the city.[13] Any flows from the city to the countryside are mainly associated with processes of suburbanization (Guzmán et al., 2006) and urbanization of the countryside (Ferras, 2007), which means that they do not fit in with the hypothesis of a "return to the countryside".

Migration between rural areas tends to constitute the least significant flows. This is partly due to advancing urbanization, the decline of colonization programmes and the depletion of the agricultural land area. Nonetheless, this could be an underestimate due to the seasonal nature of many flows that are not captured by censuses. Whatever the level of such flows, this form of migration deserves special attention as of the severe impact it can have on the environment, particularly in terms of movements towards the agricultural frontier or settlement areas (Reboratti, 1990; Pinto da Cunha, 2007).

Given that the direct estimates relate to only four of the region's countries and that the results appear inconsistent in two cases, the application of indirect estimates offers a more reliable overview of the net balance of rural-to-urban migration.[14] The figures in table 10 are based on indirect method ("intercensal survival ratios") and lead to the following conclusions. First, all countries in the region continue to register net rural emigration. Second, this migration is no longer the main source of growth of the urban population, as its share in that growth fell from 36.6% in the 1980s to 33.7% in the 1990s.[15] Third, the situation is highly uneven among countries: predictably, the significance of rural-to-urban migration for urban population growth is higher in less urbanized countries. Fourth, in terms of the rural population itself, the net transfer from the countryside to the city remains high (see figure 1). What is more, countries such as Brazil still register what could be termed a mass exodus, as the flows involve a relatively high proportion of the country's total rural population.

6. *Cities and their migratory attraction: concentrated deconcentration?*

Following on from part 3 of the previous section, on the deconcentration of urban systems in the region, what follows is a more detailed analysis of the three largest cities in 10 selected countries of the region. For value-added analysis, the distinction between indigenous and non-indigenous population is used to identify specific migratory patterns for each group.

The results in table 11 demonstrate that the top section of the urban system remains attractive, as most cities continue to register net immigration. In countries such as Bolivia, Ecuador, Honduras, Panama and Paraguay (almost all of which have an urban percentage below the regional average), the most highly

populated city (or the two most populated) are still major poles of attraction and therefore remain macrocephalous or bicephalous.[16] However, one in every three cities registers net emigration, which suggests that this situation (unheard of before the late 1980s in the region) could be spreading among the main cities of the region's countries.

Most of the region's metropolises in particular (cities with 5 million or more inhabitants) post net emigration, many since the 1980s. This turnaround is due to diseconomies of scale and the shift of urban investment to other areas (UNFPA, 2007; Montgomery, 2004; Henderson, 2000). Other factors include difficulties of governance and the proliferation of urban problems such as a lack of public safety, traffic congestion and pollution. Overall, these cities continue to receive strong inflows of immigrants; what has changed is that they have lost much of their retentive capacity.

As the above is directly related to the hypothesis of "concentrated deconcentration" (whereby people could be emigrating to nearby zones as part of a process of suburbanization, city sprawl or city-regions (Diniz, 2007)), flows from metropolises were divided into the categories nearby migration or faraway migration (table 11). The main conclusion reached was that "concentrated deconcentration" was only operating in the metropolises of Brazil, as net emigration from Greater São Paulo and Greater Rio de Janeiro was indeed exclusively due to exchanges with other municipalities from within the same state, while both agglomerations continued to gain population from migratory exchanges with other states. In all other countries, displacing cities posted net emigration in terms of nearby or faraway migration or just the latter, which suggests an effective but unclear deconcentration. In several cities that remain poles of attraction, the pattern of migratory exchange fits in with the hypothesis of concentrated deconcentration, and seems to correspond to processes of suburbanization. This is the case of Guatemala City, Quito, San Pedro Sula and Heredia.

Lastly, the negative or positive sign of migration tends to be the same for indigenous and non-indigenous groups, which suggests that the push and pull factors of cities have no ethnic bias. However a difference based on ethnic origin can be perceived in many cities: La Paz and Cochabamba (which is a sign of the current polarization of Bolivia), Tegucigalpa, Mexico City, Guadalajara and Asunción. The Bolivian and Mexican cities offer particularly striking examples as the cities concerned are losing non-indigenous population while gaining indigenous population. This obviously contributes to an increase in the proportion of indigenous people in these cities, but perhaps more importantly indigenous peoples are entering cities that are no longer attractive to non-indigenous people. The reasons for this, and its implications, should be the subject of further investigations.

D. POLICY IMPLICATIONS

The diversity of current internal migration increases the range of policies, programmes and measures available to deal with the issue. This situation also calls for greater knowledge, precision and judgement among policymakers, who must choose how to intervene based on the type of migration they are attempting to influence. Any such strategy should always adhere to the principle of combining the exercise of the right to migrate within a country in the best possible conditions, on the one hand, with the struggle against territorial discrimination that leads to poverty traps, on the other.

The four pillars of strategies for internal migration are: incentives for individuals and companies, geographical allocation of infrastructure and public services, use of instruments of territorial land-use planning and economic regeneration, and knowledge and management of the unforeseen migratory effects of various social policies.

Highly illustrative examples of the above are urban regeneration and resettlement programmes in central areas. To attract immigrants into city centres, decision-makers and technical experts have at their disposal

a huge repertoire of economic (subsidies), social (service location) and administrative instruments (amendment of land-use regulations). There is, however, a negative side to this advantage, as these instruments were not designed to influence intra-metropolitan migration, but to organize the city and optimize its functioning (and these remain high-priority strategic objectives). If the migratory forces are very strong, using these instruments to counteract them may generate imbalances that eventually result in costs for the city and its inhabitants (rising land prices, overcrowding, congestion, urban sprawl, residential segregation, etc.). As is often the case, having policy instruments is one thing, implementing them with no negative side-effects quite another.

While specific policies to halt advancing urbanization or rural-to-urban migration have proved unsuccessful (not to mention ill-advised and plain wrong according to many experts (UNFPA, 2007)), many countries would nonetheless like to redirect migratory flows between cities. According to recent studies (ILPES, 2007; UNFPA, 2007; Cohen, 2006; Guzmán et al., 2007; Davis & Henderson, 2003), the authorities of countries that consider the population to be overly concentrated in the main city perceive a solid, dense and diversified urban network as being conducive to national development. However, there is an ongoing debate on the effectiveness of programmes implemented to reduce such concentration. The natural idea of promoting some cities to the detriment (if only by omission) of others must pass several tests: to be of benefit to national development, to be consistent with or at least not contradict (national and global) market-based economic buoyancy, to be acceptable to all local stakeholders, and to respect individual rights. There are clearly many sources of limitation on the discretionary nature of public action in this domain.

Lastly, it is worth highlighting those public policies that are formulated without consideration for the mobility of the population. These include housing and transport policies, which have direct and often mechanical consequences on changes of residence (particularly within cities or between cities and their surrounding areas). These effects simply must be taken into account when formulating such policies. Going one step further, they could even be devised to have a certain impact on migration and mobility, obviously without neglecting their natural objectives of providing good-quality connections and living environments for the population.

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[1] The term Latin America and the Caribbean refers to the 42 countries and territories identified by ECLAC as making up the region. The term Latin America refers to the 20 countries identified by ECLAC as making up the subregion (17 on the mainland and three Caribbean island territories: Cuba, Dominican Republic and Haiti). For further information, see ECLAC (2005a) or Guzmán et al. (2006).

[2] Argentina, Bolivarian Republic of Venezuela, Bolivia, Brazil, Chile, Ecuador, Guatemala, Mexico and Uruguay, which combined to represent 75% of the region's population in 2000.

[3] Simple correlation of 0.81159487 (p-value = 0.000007, according to http://home.clara.net/sisa/signif.htm).

[4] The ratio of the population of the largest city over the population of the next three largest cities combined.

[5] Megalopolises are cities of 10 million or more inhabitants. In 2005, while the regional population represented 8.6% of the world population, it accounted for almost 30% of the world's megalopolises (United Nations, 2006).

[6] The categories are: (a) "millionaire" cities (1 million or more inhabitants); (b) large intermediate cities (between 500,000 and 1 million inhabitants); (c) medium-sized intermediate cities (between 50,000 and 500,000 inhabitants); (d) small intermediate cities (between 20,000 and 50,000 inhabitants; and (e) small urban areas (with between 2,000 and 20,000 inhabitants). Countries considered in the table are, again: Argentina, Bolivarian Republic of Venezuela, Bolivia, Brazil, Chile, Ecuador, Guatemala, Mexico and Uruguay

[7] These cities can therefore be identified and monitored over time using longitudinal analyses. Although this type of analysis has been carried out for specific countries (CELADE, 2007), this will not be done herein as such a regionwide vision goes beyond the scope of this document.

[8] The source for all calculations is the database on spatial distribution and urbanization in Latin America and the Caribbean (DEPUALC) (www.eclac.cl/celade/depualc). A limited version of this database was published by CELADE, 2005. Some other calculations included in this document are based on detailed country archives that are not published or available online.

[9] The author recognizes the limitations of comparing indicators of the "level" of migration between countries (Bell et al., 2005; Xu-Doeve, 2005; van der Gaag & van Wissen, 2001) and therefore urges caution when reading and possibly using or disseminating such results.

[10] The net migration rate was based on replied to the question about the major administrative division of residence five years before the census. The categories are: (a) attractive (positive net migration in both censuses); (b) displacing (negative net migration in both censures); (c) rising (negative net migration in the first census and positive in the second); (d) falling (positive net migration in the first census and negative in the second).

[11] One of the marginals corresponds to the attribute at the moment of the census (i.e. with the effect of actual migration) and the other marginal corresponds to the attribute itself (with the territorial distribution it would have if migration had not occurred in the reference period). This is a comparison between a currently observed scenario and a counterfactual one). Key to the procedure is the constancy of the attribute over time (as in variables such as sex, for instance) or variation common to the entire population (as is the case with age).

[12] There is good reason to conclude that the flow was overestimated in the census of Nicaragua, as it does not tally with other sources such as the national survey on living standards in 2001, or with the moderate pace of urbanization between 1995 and 2005

[13] The exception is Paraguay, where the question used suggests that the countryside gained over 60,000 people through internal migration in the period 1997-2002. These results have, however, been rejected by the very agency that carried out the census (Sosa, 2007).

[14] These estimates are orders of magnitude and not precise figures, as they are based on procedures that use fairly weak assumptions. They merely provide the net rural-to-urban migration balance by age and sex. These results tend to be overestimates, as they take migration to include the reclassification of areas (usually the upgrading of rural areas as urban ones as a result of population growth).

[15] Figures compatible with other studies (United Nations, 2001). This finding does not rule out rural-to-urban migration being the driving force of urbanization given the greater natural growth in the countryside (ECLAC, 2007 and 2005a).

[16] In the last two cases, the primacy index may be falling (see figure 1), while the concentration of the urban system in the two main cities may be rising.

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ANNEX: TABLES DIAGRAMS, FIGURES AND MAPS

Table 1

Major world regions, 2005: estimates of population (in thousands) living in cities with 500,000 inhabitants or more, by population size category and percentage of the total population living in cities with 500,000 inhabitants or more

Region	10 million or more	5 to 10 million	1 to 5 million	500,000 to 1 million	Percentage of total population in cities with 500,000 inhabitants or more
Latin America and the Caribbean	61 764	25 919	95 236	42 067	40.1
Africa	22 014	6 049	82 110	35 226	16.0
Asia	167 145	118 329	356 191	159 886	20.5
Europe	10 654	29 244	79 464	53 243	23.7
Oceania	0	0	13 472	517	42.4
North America	31 016	24 951	86 729	27 265	51.3

Source: prepared by the author, on the basis of United Nations, *World Urbanization Prospects. The 2005 Revision Executive Summary. Fact Sheets. Data Tables* (ESA/P/WP/200), New York, 2006 [online], www.un.org/esa/population/publications/WUP2005/2005WUPHighlights_Final_Report.pdf, table 2 and A.17 [date of reference: 27 November 2007].

Table 2

Latin America (20 countries): Human Development Index (HDI) in 2000 and percentage of the population living in cities with 20,000 inhabitants or more, by country and census round

Country (HDI, 2000)	Census round					
	1950	1960	1970	1980	1990	2000
Argentina (0.860)	50.8	60.1	66.9	71.0	74.9	76.5
Bolivia (0.675)	19.7	…	34.1	…	49.6	54.1
Brazil (0.785)	28.8	28.9	40.7	52.2	58.4	64.5
Chile (0.843)	47.1	55.1	62.0	68.5	72.1	75.4
Colombia (0.775)	22.5	37.2	45.5	55.1	59.2	60.2
Costa Rica (0.832)	18.4	22.8	30.8	33.8	33.8	49.2
Cuba (0.826: 2004)	38.3	…	43.8	47.9	47.9	…
Ecuador (0.732: 1995)	18.0	27.7	35.3	42.5	48.0	54.7
El Salvador (0.715)	14.7	19.5	21.9	…	35.9	…
Guatemala (0.656)	14.5	19.2	22.2	22.6	24.3	32.5
Haiti (0.451: 1995)	5.5	…	13.7	17.4	17.4	…
Honduras (0.654)	6.8	11.5	20.5	28.0	28.0	34.7
Mexico (0.811)	29.3	36.9	45.7	52.8	57.1	60.7
Nicaragua (0.667)	15.2	23.0	29.6	…	41.0	…
Panama (0.797)	28.2	34.6	39.1	43.6	46.8	52.7
Paraguay (0.754)	19.6	23.0	27.6	33.1	39.0	44.6
Peru (0.760)	15.9	30.3	42.0	49.9	55.2	…
Dominican Republic (0.733)	11.1	18.7	30.5	41.9	45.2	52.7
Uruguay (0.841)	66.9	66.9	69.9	71.8	74.3	…
Bolivarian Republic of Venezuela (0.774)	38.7	52.7	63.5	70.5	71.5	74.3

Source: Latin American and Caribbean Demographic Centre (CELADE)-Population Division of ECLAC, on the basis of the [online] www.eclac.cl/celade/depualc database on spatial distribution and urbanization in Latin America and the Caribbean (DEPUALC) / and United Nations Development Programme (UNDP) [online] http://hdrstats.undp.org/indicators/10.html [date of reference: 14 November 2007.]

Table 3
Latin America and the Caribbean: urbanization indicators

Year	1950	1960	1970	1980	1990	2000	2010	2020	2030
Total	167321	218577	285196	362210	443747	522929	598771	666955	722377
Rural	97084	111062	122178	126522	129007	128717	125210	120613	113409
Urban	70237	107515	163018	235688	314739	394212	473561	546342	608968
% Urban	42	49.2	57.2	65.1	70.9	75.4	79.1	81.9	84.3
Urbanization rate		1.58	1.51	1.29	0.85	0.62	0.48	0.35	0.29
% Rural	58	50.8	42.8	34.9	29.1	24.6	20.9	18.1	15.7
Ratio UR-%R		0.029	0.032	0.033	0.027	0.023	0.021	0.018	0.017

Source: United Nations [online] http://esa.un.org/unup/p2k0data.asp [date of reference: 27 November 2007].

Table 4
Latin America and the Caribbean (selected countries): number of cities in each size category, census rounds 1950 to 2000

Size category	1950	1960	1970	1980	1990	2000
1,000,000 and above	5	9	17	23	33	35
500,000 to 1,000,000	4	13	14	20	28	33
100,000 to 500,000	42	64	112	171	202	225
50,000 to 100,000	54	95	135	166	261	314
20,000 to 50,000	167	261	374	540	754	921
Total cities with 20,000 and above	272	442	652	920	1278	1528

Source: prepared by the author on the basis of the [online] www.eclac.cl/celade/depualc/ database on spatial distribution and urbanization in Latin America and the Caribbean (DEPUALC).

Table 5
Latin America and the Caribbean: percentage of internal migrants by type of migration, 1990 and 2000

Census round	Absolute or life-long migration		Recent migration (last 5 years)	
	Major administrative division (%)	Minor administrative division (%)	Major administrative division (%)	Minor administrative division (%)
1990	17.5	34.2	5.1	12.6
2000	17.7	35.2	4	8.7

Source: special processing of census microdata: 18 countries in 1990 and 20 in 2000 (not all countries had data for all four types of migration).

Table 6

Latin America and the Caribbean: simple linear correlation between the Human Development Index (HDI) and the net rate of internal migration at the level of major administrative divisions, selected countries, 2000 round of censuses

Country, reference year, number of divisions with data, and indicator	Simple correlation between indicator and rate of net migration (p-value between brackets)
Argentina, 2001: 24 divisions, HDI 1996	0.407 (0.0242)*
Bolivia, 2002: 9 divisions, HDI 1994	0.619 (0.0378)*
Brazil, 2000: 27 divisions, HDI 1996	0.451 (0.0091)*
Chile, 2002: 13 divisions, HDI 1998	-0.01136 (0.5147)
Colombia, 2005: 24 divisions, HDI, 2000	0.414 (0.0222)*
Cuba, 2002: 14 divisions, HDI 1996	0.770 (0.0006)*
Ecuador, 2001: 15 divisions, HDI, 1999	0.650 (0.0044)*
Guatemala, 2002: 22 divisions, HDI 1995-1996	0.442 (0.01972)*
Honduras, 2001: 18 divisions, HDI 1996	0.697 (0.0006)*
Mexico, 2000: 32 divisions, HDI 1995	0.408 (0.0102)*
Nicaragua, 2005: 17 divisions, HDI 2000	0.055 (0.4170)
Panama, 2000: 12 divisions, HDI 2000	0.484 (0.0554)
Paraguay, 2002: 18 divisions, HDI 2000	0.133 (0.29936)
Uruguay, 1996: 19 divisions, HDI 1991	0.063 (0.60097)
Venezuela (Bolivarian Republic of), 2001: 23 divisions, HDI 1996	0.0686 (0.3780)

Source: Migration rates, special processing of microdata from the relevant censuses; socioeconomic data, national human development reports and official subnational statistics. P-values from correlations: http://home.clara.net/sisa/signif.htm.
* Significant to a 95% level of significance (p-value<0.05).

Table 7

Latin America and the Caribbean: correlations between selected sociodemographic variables and their variation due to recent internal migration, selected countries, 2000 round of censuses

Country	Simple correlation between the initial level of the indicator and the net and exclusive impact of migration on the indicator				
	Average age	Percentage of children	Percentage of older adults	Masculinity ratio	Average years of schooling (age 30-59)
Argentina, 2001	-0.27	*0.61*	-0.04	*0.64*	0.02
Bolivia, 2002	0.26	-0.32	*0.67*	0.17	*0.85*
Brazil, 2000	-0.05	0.00	*0.47*	*0.46*	-0.02
Chile, 2002	0.08	0.18	*0.61*	*0.78*	*-0.71*
Costa Rica, 2000	-0.19	0.42	0.35	0.27	0.06
Ecuador, 2001	-0.27	-0.13	0.43	*0.47*	*-0.55*
Guatemala, 2002	*-0.67*	0.21	-0.21	*0.48*	-0.04
Honduras, 2001	-0.32	*0.62*	*0.44*	*0.43*	*-0.70*
Mexico, 2000	-0.17	0.29	*0.5*	0.19	-0.22
Panama, 2000	-0.34	-0.24	0.23	*0.87*	0.31
Paraguay, 2002	-0.11	0.26	0.17	*0.84*	-0.38
Dominican Republic, 2002	-0.43	*0.80*	0.20	*0.92*	-0.16
Venezuela (Bolivarian Republic of), 2001	0.19	*0.49*	*0.46*	*0.36*	0.14

Source: Prepared by the author on the basis of information from the database on Internal Migration in Latin America and the Caribbean (MIALC) and procedures as described in the body of the text.
Note: coefficients that are significant to a significance level of 95% are highlighted in bold.

Table 8
Latin America and the Caribbean, selected countries: major administrative divisions that are part of historically disadvantaged areas of net emigration, by effect of internal migration on the age structure and level of schooling of the population

North of Argentina (NOA)					Altiplano of Bolivia					Southern central Chile				
Major administrative division of net emigration	Net rate of migration (per thousand)	Proportion of children	Proportion of older adults	Schooling of heads of household	Major administrative division of net emigration	Net rate of migration (per thousand)	Proportion of children	Proportion of older adults	Schooling of heads of household	Major administrative division of net emigration	Net rate of migration (per thousand)	Proportion of children	Proportion of older adults	Schooling of heads of household
Salta	-0.91	0.69	0.7	-0.082	Chuquisaca	-6.27	0.76	1.73	1.724	Del Maule	-0.42	1.73	1.22	0.19
Jujuy	-2.09	1.3	1.05	-0.735	La Paz	-3.11	0.14	0.2	-0.393	Bio Bio	-2.21	1.15	1.18	-0.46
Tucumán	-0.27	0.04	0.29	-0.006	Oruro	-8.88	2.38	2.94	-2.268	Araucania	-0.48	1.66	1.19	0.25
Santiago del Estero	-1.4	0.87	0.71	-0.143	Potosí	-14.76	1.67	3.34	-2.168					

North east of Brazil					Sierra region (highlands) of Ecuador					Southern Mexico				
Major administrative division of net emigration	Net rate of migration (per thousand)	Proportion of children	Proportion of older adults	Schooling of heads of household	Major administrative division of net emigration	Net rate of migration (per thousand)	Proportion of children	Proportion of older adults	Schooling of heads of household	Major administrative division of net emigration	Net rate of migration (per thousand)	Proportion of children	Proportion of older adults	Schooling of heads of household
Maranhão	-6.88	0.77	2.52	-0.248	Carchi	-13.13	2.91	2.27	-1.9833	Oaxaca	-4.24	0.79	1.68	0.039
Piauí	-4.06	1.32	1.83	-0.657	Imbabura	-1.89	1.08	0.85	0.23049	Guerrero	-6.42	0.36	2.14	-0.149
Ceará	-0.72	0.47	0.57	0.599	Cotopaxi	-5.13	1.40	0.99	-0.2953	Chiapas	-2.85	0.69	0.99	-0.268
Paraíba	-3.92	0.82	1.86	-0.173	Tungurahua	-1.79	0.94	0.20	-0.2927	Puebla	-1.14	0.28	0.37	0.068
Pernambuco	-3.21	0.49	1.14	-0.072	Bolivar	-15.16	3.67	2.36	-3.0228	Veracruz	-6.89	1.66	2.98	-0.971
Alagoas	-5.70	0.4	2.61	-0.033	Chimborazo	-9.01	1.91	2.56	0.15052					
Sergipe	-0.61	0.31	1.13	-0.063	Loja	-9.30	2.47	2.30	-0.5514					
Bahia	-4.50	0.42	1.95	0.081										

Source: Prepared by the author on the basis of information from the [online] www.eclac.cl/migracion/migracion_interna/ database on Internal Migration in Latin America and the Caribbean (MIALC) and procedures as described in the body of the text.

Table 9
Population aged 5 and above: direct estimates of recent migration between urban and rural areas:
countries whose census includes relevant questions, 2000 round of censuses

Country and census	Current area of residence	Area of residence 5 years previously		
		No migration between minor administrative divisions	Urban	Rural
Brazil, 2000	Urban	111 027 460	10 775 021	3 244 288
	Rural	24 965 713	2 168 599	1 161 891
Nicaragua, 2005	Urban	2 109 103	67 567	338 008
	Rural	1 744 706	119 443	64 210
Panama, 2000	Urban	1 297 825	152 089	74 836
	Rural	832 551	40 798	29 741
Paraguay, 2002	Urban	2 175 943	248 014	31 361
	Rural	1 734 786	91 592	53 867

Source: Prepared by the author, on the basis of special processing of census microdata.

Note: as in all tables included in this document, there are obvious filters including children under the age of 5 for recent migration; exclusion of those born or living in other countries five years previously in the analysis of absolute and recent migration, respectively; and exclusion of cases of no reply or outlier replies to base questions (usual place of residence, birth and residence five years previously) in the interests of data quality. In this table, some countries capture rural-to-urban migration within minor administrative divisions (Brazil, Paraguay), while others do not (Nicaragua, Panama), which means that any comparison between them should be made cautiously.

Table 10
Population aged 10 and above: net rural-to-urban migration and urban population growth

Countries	Net rural-to-urban migration		Growth of urban population aged 10 and over		Relative significance of rural-to-urban migration to urban growth	
	1980-1990	1990-2000	1980-1990	1990-2000	1980-1990	1990-2000
Argentina	1 248 867	829 981	4 146 455	3 414 868	30.1	24.3
Bolivia	565 718	341 525	882 210	1 174 625	64.1	29.1
Brazil	9 167 628	9 483 867	22 868 322	26 856 555	40.1	35.3
Chile	146 535	382 623	1 447 011	1 939 951	10.1	19.7
Colombia	-	-	-	-	-	-
Costa Rica	82 656	338 002	194 507	717 006	42.5	47.1
Cuba	735 083	370 110	1 525 671	918 531	48.2	40.3
Ecuador	647 934	612 251	1 341 021	1 598 897	48.3	38.3
El Salvador	294 277	-	535 196	-	55.0	-
Guatemala	226 021	824 486	525 724	1 384 850	43.0	59.5
Honduras	258 003	303 742	501 918	685 610	51.4	44.3
Mexico	3 997 266	4 183 486	12 108 257	13 103 802	33.0	31.9
Nicaragua	139 920	-	484 649	-	28.9	-
Panama	113 677	234 038	292 298	432 624	38.9	54.1
Paraguay	280 103	296 914	504 441	652 302	55.5	45.5
Peru	1 001 406	-	2 990 661	-	33.5	-
Dominican Republic	218 172	553 575	709 784	1 096 408	30.7	50.5
Uruguay	83 300	34 446	233 238	132 306	35.7	26.0
Venezuela (Bolivarian Republic of)	735 042	847 392	3 171 190	4 235 917	23.2	20.0
Total	**19 941 608**	**19 636 438**	**54 462 553**	**58 344 252**	**36.6**	**33.7**

Source: Prepared by the author, using indirect technique (intercensal survival ratios).

Table 11
Latin America: internal migration indicators for three main metropolitan areas, selected countries, 1990 and 2000 census rounds

Country and year	Metropolitan area[a]	Indigenous				Non-indigenous				Total		
		Net migration	Rate (per 1000)	Net nearby migration	Net faraway migration	Net migration	Rate (per 1000)	Net nearby migration	Net faraway migration	Net migration	Rate (per 1000)	Net nearby migration
Bolivia, 2001	La Paz	12 212	2.9	23 961	-11 749	-6 978	-3.8	3 140	-10 118	5 234	27 101	-21 867
	Santa Cruz	24 279	17.9	-338	24 617	21 532	7.0	2 110	19 422	45 811	1 772	44 039
	Cochabamba	752	0.6	-1 159	1 911	-2 528	-3.0	-1 242	-1 286	-1 776	-2 401	625
Brazil, 2000	São Paulo	-164	-1.1	-747	583	-231 657	-2.9	-339 707	108 050	-231 821	-340 454	108 633
	Rio de Janeiro	435	3.1	-175	610	-29 854	-0.6	-49 505	19 651	-29 419	-49 681	20 262
	B. Horizonte	311	4.3	89	222	61 886	3.4	42 691	19 195	62 197	42 780	19 417
Chile, 2002	Santiago	-411	-0.5	-947	536	-49 306	-2.1	-30 945	-18 361	-49 717	-31 892	-17 825
	Valparaiso	231	5.4	24	207	8 927	2.5	1 361	7 566	9 158	1 385	7 773
	Concepción	-387	-5.4	-46	-341	-7 438	-2.5	711	-8 149	-7 825	665	-8 490
Costa Rica, 2000	San José	-78	-2.6	-13	-65	-13 849	-2.8	229	-14 078	-13 927	216	-14 143
	Heredia	6	2.1	5	1	4 442	5.4	-2 265	6 707	4 448	-2 260	6 708
	Cartago	28	36.8	8	20	2 874	3.9	644	2 230	2 902	652	2 250
Ecuador, 2001	Quito	5 005	28.6	-592	5 597	18 198	3.0	-29 157	47 355	23 203	-29 749	52 952
	Guayaquil	3 068	23.9	31	3 037	41 068	4.3	11 609	29 459	44 136	11 640	32 496
	Cuenca	714	49.1	147	567	11 322	9.4	2 968	8 354	12 036	3 115	8 921
Guatemala, 2002	Guatemala City	10 666	14.4	-3 028	13 694	489	0.1	-28 459	28 948	11 155	-31 487	42 642
	Quetzalten	1 007	3.8	681	326	98	0.4	216	-118	1 105	897	208
	Escuintla	-152	-6.7	-9	-143	-2 556	-5.2	-561	-1 995	-2 708	-570	-2 138
Honduras, 2001	Tegucigalpa	-219	-12.7	-32	-187	11 671	3.2	1 218	10 453	11 452	1 186	10 266
	San Pedro Sula	181	3.7	-42	223	6 708	3.1	-11 439	18 147	6 889	-11 481	18 370
	La Ceiba	258	6.7	-10	268	1 089	2.1	203	886	1 347	193	1 154
Mexico, 2000	Mexico City	1 137	1.7	1 226	-89	-72 063	-1.0	17 596	-89 659	-70 926	18 822	-89 748
	Guadalajara	41	1.1	-46	87	-14 719	-1.0	-8 256	-6 463	-14 678	-8 302	-6 376
	Monterrey	1 965	52.9	-2	1 967	40 656	3.0	-148	40 804	42 621	-150	42 771
Panama, 2000	Panama City	8 101	67.7	161	7 940	74 220	14.5	5 979	68 241	82 321	6 140	76 181
	Colón	270	17.3	8	262	1 499	2.1	2 105	-606	1 769	2 113	-344
	David	651	62.2	287	364	266	0.5	5 402	-5 136	917	5 689	-4 772
Paraguay, 2002	Asunción	-219	-12.7	-32	-187	11 671	3.2	1 218	10 453	11 452	1 186	10 266
	C.del Este	88	200.0	11	77	-2 257	-2.4	-1 861	-396	-2 169	-1 850	-319
	Encarnación	4	20.0	-2	6	-3 592	-8.7	-1 213	-2 379	-3 588	-1 215	-2 373

Source: prepared by the author, on the basis of special processing of census microdata.

[a] For a definition of metropolitan area, see the DEPUALC database [online] **www.eclac.cl/celade/depualc/**.

[b] Population aged five and above, resident in the country five years before the census and with valid replied to questions about usual place of residence and place of residence five years previously.

Diagram 1

Latin America and the Caribbean, selected countries: classification of major administrative divisions by internal migration status in census rounds 1990 and 2000

Antigua and Barbuda

	Population gains Net migration (+) 2001-1996	Population losses Net migration (-) 2001-1996
Net migration (+) 1992-1987	St. John's Rural; St. George's; St. Peter's	
Net migration (-) 1992-1987		St. Phillip's; St. Paul's St. Mary's; St. John's City; Barbuda

Barbados

	Population gains Net migration (+) 2000-1995	Population losses Net migration (-) 2000-1995
Net migration (+) 1991-1986	St.Peter; St.Philip; Christ Church; St.James	
Net migration (-) 1991-1986	St.George; St.Thomas	St.Michael; St.John; St.Joseph; St.Andrew; St.Lucy

Belize

	Population gains Net migration (+) 2001-1996	Population losses Net migration (-) 2001-1996
Net migration (+) 1992-1987	Cayo District	Belize District
Net migration (-) 1992-1987	Stann Creek District	Corozal District; Orange Walk District; Toledo District

Bolivia

	Population gains Net migration (+) 2001-1996	Population losses Net migration (-) 2001-1996
Net migration (+) 1992-1987	Cochabamba; Tarija; Santa Cruz; Pando	Beni
Net migration (-) 1992-1987		Chuquisaca; La Paz; Oruro; Potosí

Brazil

	Population gains Net migration (+) 2000-1995	Population losses Net migration (-) 2000-1995
Net migration (+) 1991-1986	Amazonas; Roraima; Amapá; Tocantins; Espírito Santo; São Paulo; Santa Catarina; Mato Grosso; Goiás; Federal District; Rondônia	Pará; Sergipe; Mato Grosso do Sul
Net migration (-) 1991-1986	Rio Grande do Norte; Minas Gerais; Rio de Janeiro	Acre; Maranhão; Piauí; Ceará; Paraíba; Pernambuco; Alagoas; Bahia; Paraná; Rio Grande do Sul

Chile

	Population gains Net migration (+) 2002-1997	Population losses Net migration (-) 2002-1997
Net migration (+) 1992-1987	Valparaíso; Tarapacá	Atacama; Metropolitan area of Santiago
Net migration (-) 1992-1987	Antofagasta; Coquimbo; Lib. Gral. Bernardo O'Higgins; Los Lagos	Maule; Bío Bio; La Araucanía; Aisén; Magallanes and Antarctic

Colombia[1]

	Population gains Net migration (+) 2005-2000	Population losses Net migration (-) 2005-2000
Net migration (+) 1993-1988	Bogotá; Risaralda; Valle; Casanare; Cundinamarca; Quindío	Bolívar; Atlántico; Guajira; Arauca
Net migration (-) 1993-1988	Antioquia; Santander; Meta	Boyacá; Caldas; Cauca; Córdoba; Chocó; Huila; Magdalena; Nariño; Sucre; Tolima; Amazonas; Caquetá; Cesar; Norte. Santander; Putumayo; San Andrés; Guaviare; Vichada

Costa Rica

	Population gains Net migration (+) 2001-1996	Population losses Net migration (-) 2001-1996
Net migration (+) 1984-1979	Alajuela; Cartago; Heredia; Limón	
Net migration (-) 1984-1979		San José; Guanacaste; Puntarenas

Cuba

	Population gains Net migration (+) 2002-1997	Population losses Net migration (-) 2002-1997
Net migration (+) 1981-1976	Havana; Havana City; Matanzas; Cienfuegos; Ciego de Ávila; Camagüey; Isla de la Juventud	
Net migration (-) 1981-1976	Sancti Spíritus	Pinar del Río; Villa Clara; Las Tunas; Holguín; Ganma; Santiago de Cuba; Guantánamo

Ecuador[2]

	Population gains Net migration (+) 2001-1996	Population losses Net migration (-) 2001-1996
Net migration (+) 1990-1985	El Oro; Guayas; Pastaza; Pichincha; Galápagos; Sucumbíos	Morona Santiago; Napo; Zamora Chinchipe
Net migration (-) 1990-1985	Azuay; Cañar	Bolívar; Carchi; Cotopaxi; Chimborazo; Esmeraldas; Imbabura; Loja; Los Rios; Manabí; Tungurahua

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[1] No information available for the major administrative divisions of Guainia and Vaupes in the census of 1993.

[2] No information available for the major administrative division of Orellana in the census of 1990.

Guatemala

	Population gains Net migration (+) 2002-1997	Population losses Net migration (-) 2002-1997
Net migration (+) 1994-1989	Guatemala; Sacatepéquez; Peten	
Net migration (-) 1994-1989	Chimaltenango; Escuintla	El Progreso; Santa Rosa; Sololá; Totonicapán; Quetzaltenango; Suchitepéquez; Retalhuleu; San Marcos; Huehuetenango; Quiche; Baja Verapaz; Alta Verapaz; Izabal; Zacapa; Chiquimula; Jalapa; Jutiapa

Honduras

	Population gains Net migration (+) 2001-1996	Population losses Net migration (-) 2001-1996
Net migration (+) 1988-1983	Atlántida; Cortés; Francisco Morazán; Islas de la Bahía	Colón; Comayagua; Yoro
Net migration (-) 1988-1983		Copán; Choluteca; El Paraíso; Gracias a Dios; Intibuca; La Paz; Lempira; Ocotepeque; Olancho; Santa Bárbara; Valle

Mexico

	Population gains Net migration (+) 2000-1995	Population losses Net migration (-) 2000-1995
Net migration (+) 1990-1985	Aguascalientes; Baja California; Baja California Sur; Campeche; Colima; Chihuahua; Guanajuato; Jalisco; México; Morelos; Nuevo León; Querétaro de Arteaga; Quintana Roo; Sonora; Tamaulipas; Tlaxcala	
Net migration (-) 1990-1985	Coahuila; Hidalgo; Yucatán	Chiapas; Federal District; Durango; Guerrero; Michoacán; Nayarit; Oaxaca; Puebla; San Luis Potosí; Sinaloa; Tabasco; Veracruz Llave; Zacatecas

Nicaragua

	Population gains Net migration (+) 2005-2000	Population losses Net migration (-) 2005-2000
Net migration (+) 1995-1990	Atlántico Norte; Managua; Río San Juan	Jinotega
Net migration (-) 1995-1990	Masaya; Granada; Carazo; Rivas; Nueva Segovia	Madriz; Estelí; Chinandega; León; Matagalpa; Boaco; Chontales; Atlántico Sur

Panama[3]

	Population gains Net migration (+) 2000-1995	Population losses Net migration (-) 2000-1995
Net migration (+) 1990-1979	Panama	Bocas del Toro; Darién
Net migration (-) 1984-1979		Coclé; Colón; Chiriquí; Herrera; Los Santos; Veraguas

Paraguay

	Population gains Net migration (+) 2002-1997	Population losses Net migration (-) 2002-1997
Net migration (+) 1992-1987	Alto Paraná; Boquerón; Canindeyú; Central	
Net migration (-) 1992-1987	Presidente Hayes	Alto Paraguay; Amambay; Asunción; Caaguazú; Caazapá; Concepción; Cordillera; Guaira; Itapú; Misiones; Ñeembucu; Paraguarí; San Pedro

Uruguay

	Population gains Net migration (+) 1996-1991	Population losses Net migration (-) 1996-1991
Net migration (+) 1985-1980	Canelones	Artigas; Cerro Largo; Montevideo; Rivera; Rocha; Treinta y Tres
Net migration (-) 1985-1980	Maldonado; San José	Colonia; Durazno; Flores; Florida; Lavalleja; Paysandú; Río Negro; Salto; Soriano; Tacuarembó

Venezuela (Bolivarian Republic)[4]

	Population gains Net migration (+) 2001-1996	Population losses Net migration (-) 2001-1996
Net migration (+) 1990-1985	Lara; Anzoategui; Aragua; Barinas; Carabobo; Cojedes; Miranda; Nueva Esparta; Amazonas;	Bolívar
Net migration (-) 1990-1985	Delta Amacuro; Mérida; Monagas; Yaracuy	Apure; Falcon; Guarico; Sucre; Tachira; Trujillo; Zulia; Capital District; Portuguesa

Source: Prepared by the author on the basis of information from the [online] www.eclac.cl/migracion/migracion interna/ database on Internal Migration in Latin America and the Caribbean (MIALC), special processing of census microdata, online processing of the 2005 census of Colombia http://200.21.49.242/cgibin/RpWebEngine.exe/PortalAction?&MODE=MAIN&BASE=CG2005BASICO&MAIN=WebServerMain.inl. and data sent in by the National Statistical Office (ONE) of Cuba.

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[3] No information available for the major administrative divisions (in these cases *Comarcas)* of Kuna Yala, Emberá and Comarca Gnobe Bugle in the census of 1990.

[4] No information available for the major administrative divisions Vargas and Federal Dependencies in the census of 1990.

Figure 1 - Latin America, selected countries: primacy index *circa* 1950, 1990 y 2000
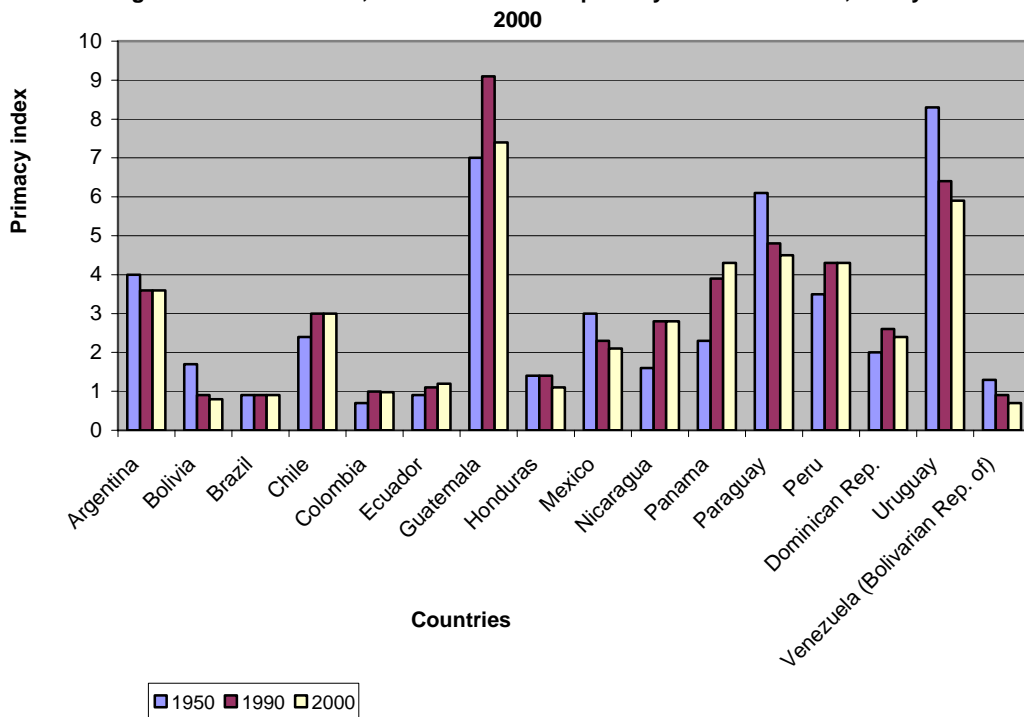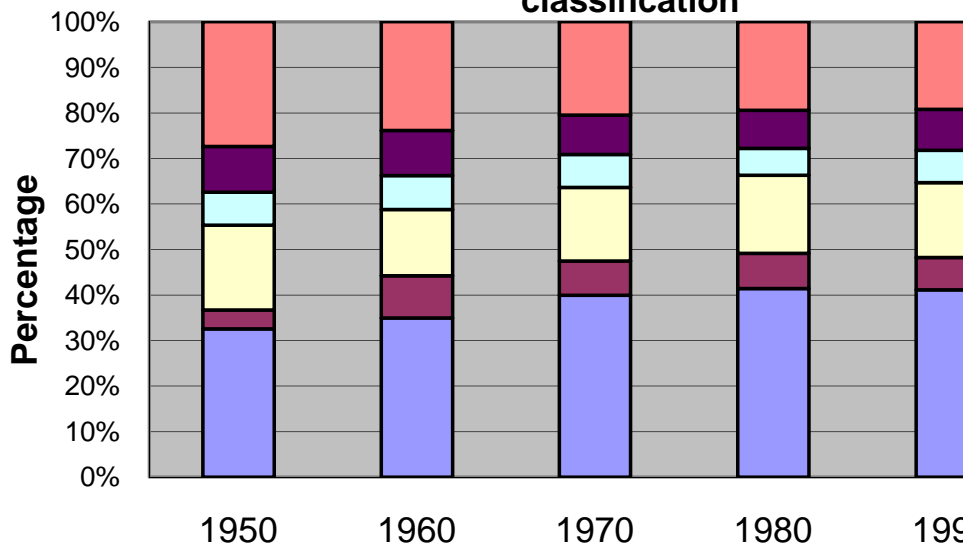

Legend: 1950 ■ 1990 □ 2000

Source: Prepared by the author on the basis of the [online] www.eclac.cl/celade/depualc/ database on spatial distribution and urbanization in Latin America and the Caribbean (DEPUALC).

Figure 2 - Latin America and the Caribbean (selected c share of towns with 20,000 or more inhabitants in total p by size category
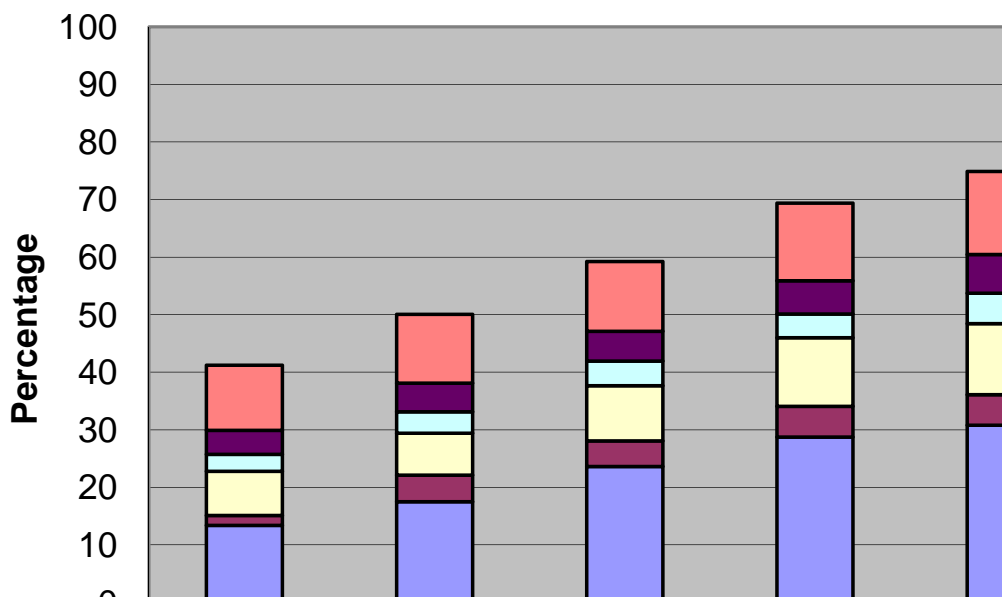
Source: Prepared by the author on the basis of the [online] www.eclac.cl/celade/depualc/ database on spatial distribution and urbanization in Latin America and the Caribbean (DEPUALC).

**Figure 3 - Latin America and the Caribbean (se[...]
countries): relative structure of the urban system [...]
classification**

Source: Prepared by the author on the basis of the [online] www.eclac.cl/celade/depualc/ database on spatial distribution and urbanization in Latin America and the Caribbean (DEPUALC).

Figure 4 - Latin America and the Caribbean and the United States: recent internal mobility rate (5 years prior to census) between major administrative divisions, countries with census rounds 1990 and 2000 available
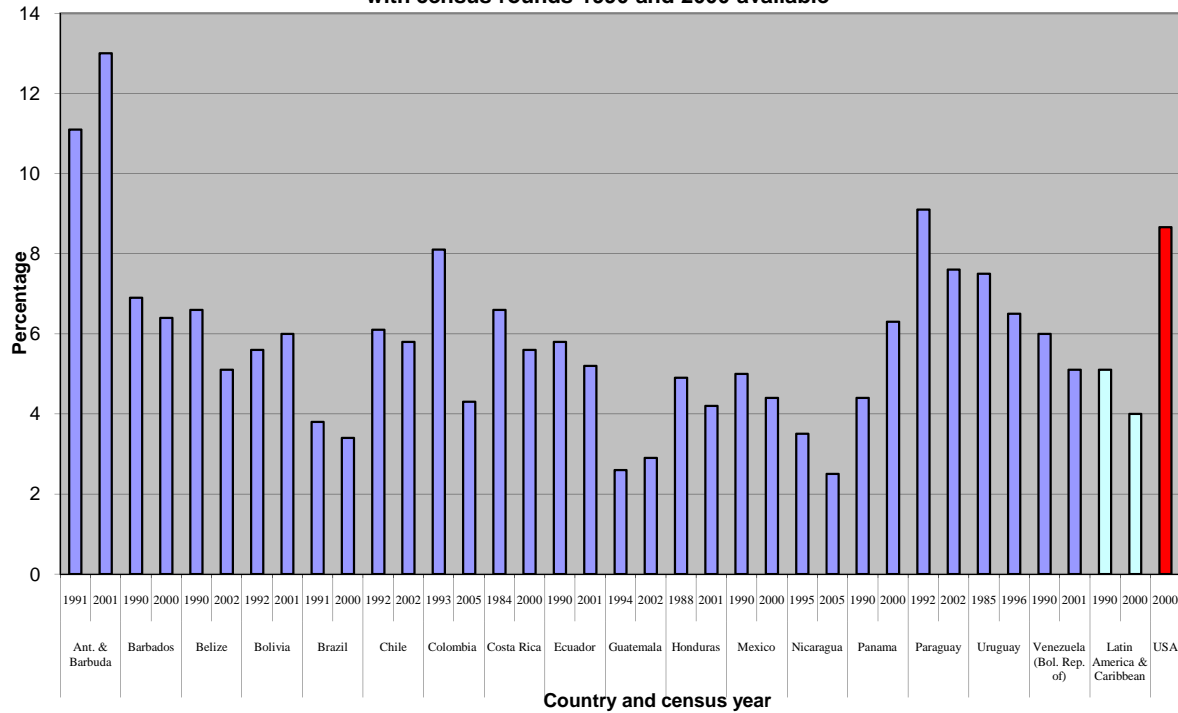

Source: Economic Commission for Latin America and the Caribbean (ECLAC), *Social Panorama of Latin America, 2006* (LC/G.2351-P/E), Santiago, Chile , 2007; and United States Census Bureau [online] http://factfinder.census.gov/servlet/QTTable?_bm=n&_lang=en&qr_name=DEC_2000_SF3_U_DP2&ds_name=DEC_2000_SF3_U&geo_id=01000US.

Figure 5
Ratio between net rural-to-urban migration 1990-2000
and the rural and urban population in 1990
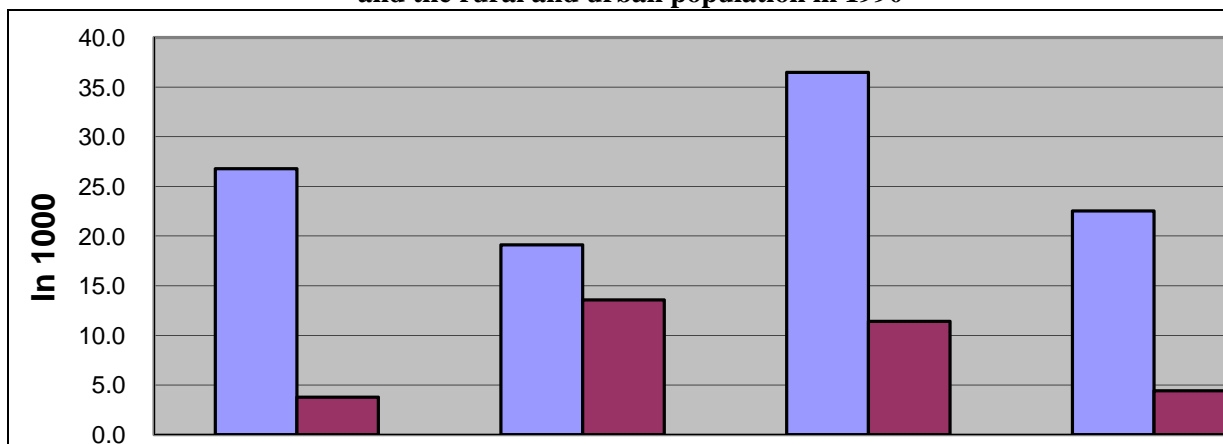
Source: Prepared by the author on the basis of indirect technique (intercensal survival ratios).
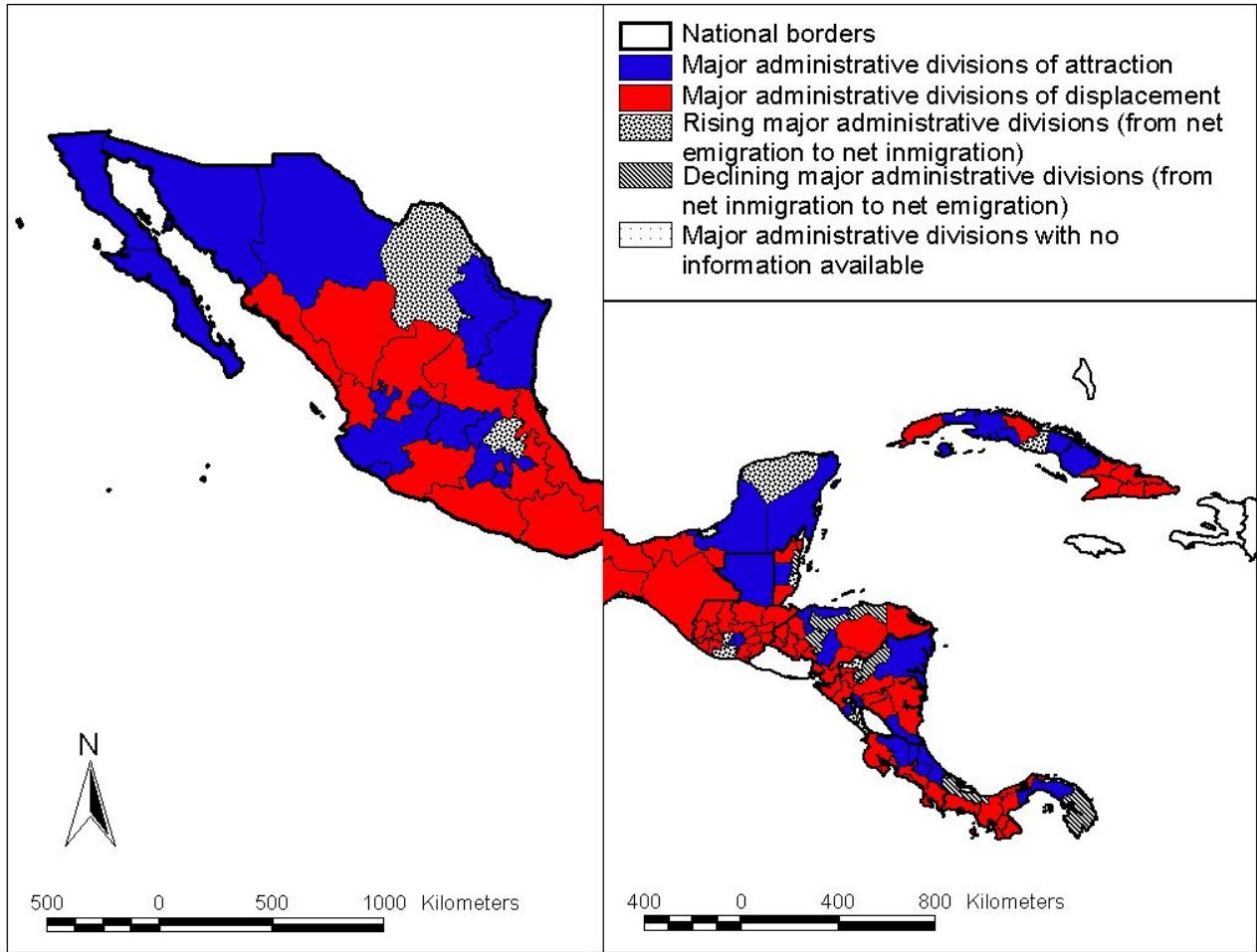
Map 1
SOUTH AMERICA (SELECTED COUNTRIES): MAJOR ADMINISTRATIVE DIVISION BY MIGRATORY STATUS (CENSUS ROUNDS 1990 AND 2000)
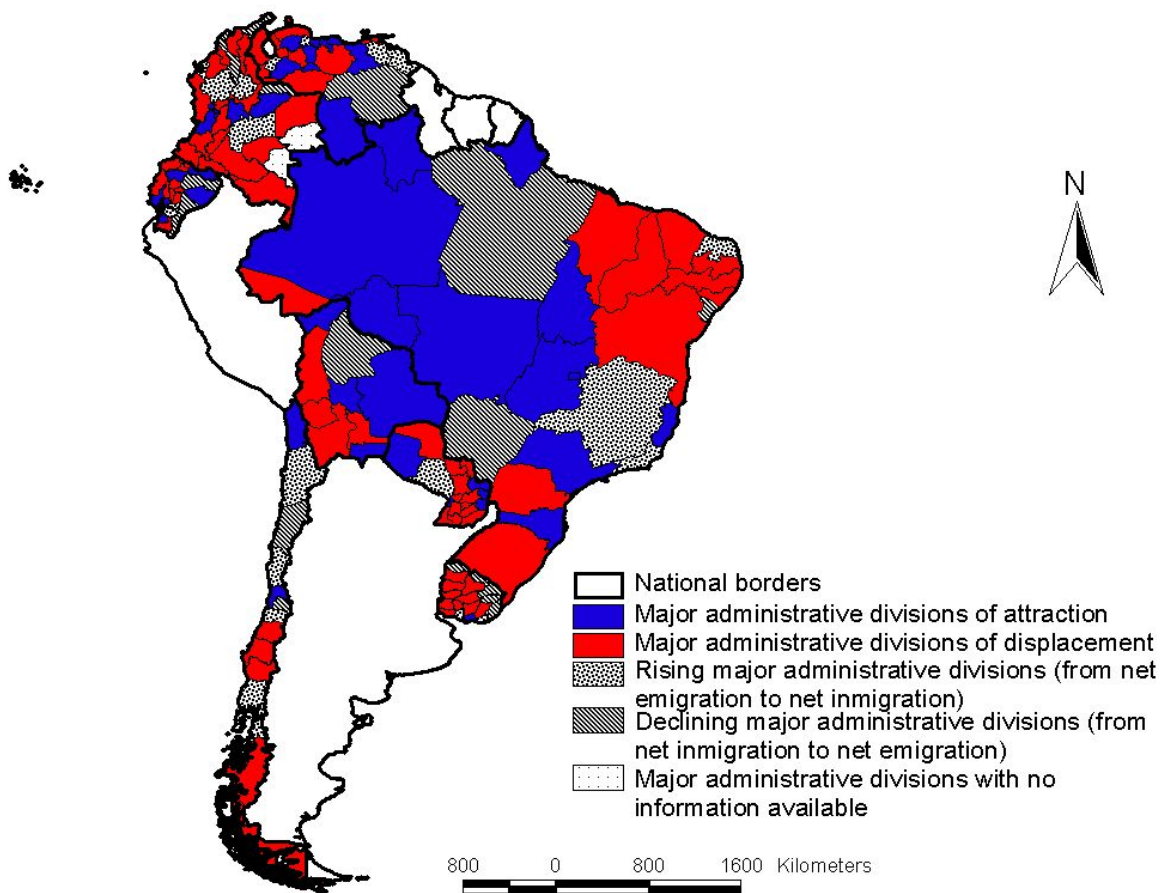
Source: Latin American and Caribbean Demographic Centre (CELADE) – Population Division of ECLAC, on the basis of figures from the [online] www.eclac.cl/migracion/migracion_interna/ database on Internal Migration in Latin America and the Caribbean (MIALC).
Note: The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations.

Map 2
**CENTRAL AMERICA AND THE CARIBBEAN (SELECTED COUNTRIES): MAJOR ADMINISTRATIVE DIVISION
BY MIGRATORY STATUS
(CENSUS ROUNDS 1990 AND 2000)**

Source: Latin American and Caribbean Demographic Centre (CELADE) – Population Division of ECLAC, on the basis of figures from the [online] www.eclac.cl/migracion/migracion_interna/ database on Internal Migration in Latin America and the Caribbean (MIALC).
Note: The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations.