

Concentrated deconcentration and migration: a look from large metropolitan areas of Latin America

Extended Summary

Trends in population concentration or deconcentration in one or more cities can be framed in discussions on so-called metropolitan mutations, in vogue during the 21st century, which relate to several aspects, including: (i) metropolitan growth; (ii) metropolitan concentration; (iii) the modalities of population and territorial growth associated with them; and (iv) sociodemographic and socio-economic disparities within the metropolises, i.e. between different areas of the city, including socioeconomic residential segregation.

However, the issue of population concentration or deconcentration and its activities has roots that go back much further. Since the second half of the Twentieth Century, hegemonic theories about urban studies begin to anticipate inevitable deconcentration or concentrated dispersion (Geyer and Kontuly, 1996). The findings reveal the rising costs of concentration and public policies acquire a bias of deconcentration or at least redistribution of population and resources into the territory. Deconcentration is a frequent prognosis of evolutionary and homeostatic economic and social theories, an emblematic example being Williamson's hypothesis (1965), on the inverted U-shaped relationship between population concentration and economic and social development. So is the theories of the transition of mobility and evolutionary urbans (Zelinsky, 1971; Pacione, 2009).

The deconcentration hypothesis has been challenged from different angles. On the one hand, there are approaches that enhance the role of large cities as a command and control center in the globalized economy, thereby raising expectations of a recovery of the economic and social attractiveness of these cities, opening the door to possible processes of reconcentration. On the other hand, there are the visions that question the existence of a deconcentration due to the persistence of concentrating forces and the inertia of highly concentrated economic, social and political systems, such as those that exist in Latin America. There are also questions about the genuine or fictional nature of this deconcentration, raising the hypothesis of concentrated deconcentration in this context. Extremely summarized, this hypothesis raises, in its demographic dimension, the following: (i) a gradual loss of the relative demographic importance of the main metropolitan area to the national total; (ii) which is mainly caused by the loss of immigration attractiveness and the move to net emigration status; (iii), but that their output flows correspond in large part to flows to nearby locations; (iv) so such loss of gravitation and migratory attractiveness disappears when a wider geographic scale of analysis is used and the buffers of the main metropolitan area are incorporated, the localities of their environment receiving most of their emigration flows, as well as recipients of internal migration flows from the rest of the national territory.

While the bibliographic review suggests that demographic and economic deconcentration go hand in hand, it is clear that they may have varied associations or even dissimilar temporal and spatial patterns, because the deconcentrating forces of economic activity do not operate in the same way in the case of industry, on the one hand and in trade or the services sector , on the other hand, the latter activities are the bulk of the occupational and productive structures of metropolitan economies in the world and in Latin America and the Caribbean. Whatever the case may be, it is natural for demographers and analysts of the population to concentrate on

the concentrated deconcentration of the population, which is the subject of this work. For the future, it is planned to study the territorial deconcentration of employment according to the branch of activity and also in the complex, but fundamental, relationship between migration and daily mobility of the population.

The hypothesis of concentrated deconcentration has been exposed in various works and by different authors. However, it has not been empirically evaluated to date in its demographic aspect. Therefore, the objective of this article is to carry out this assessment, exploiting in as much detail and rigor as possible the only source that allows empirical consideration of this hypothesis in Latin America: population censuses, in particular their micro-data of internal migration.

Materials y methods

To fulfill the purpose of this article, a number of definitions and delimitations are used that allow the implementation of the concept of concentrated deconcentration for empirical verification in large Latin American cities.

Analysis unit: large cities with one million or more inhabitants of Latin America, selected according to regional representativeness, case diversity, pre-tracking and data availability. The cities under review are: Mexico City, Montevideo, San Jose de Costa Rica, Santiago de Chile and Sao Paulo.

Geographical definition: The updated territorial definition of urban agglomerations is used, i.e. valid for the last available and extended census, i.e. it includes both the urban spot of the main city and its suburban expansion zone. The latter is important, because this widespread definition reduces the possibility of confusing suburbanization, usually linked to everyday movements between the central city and suburban areas, with deconcentration, more related to productive relocation and therefore jobs and, in that line, with population that stops working regularly in the reference city.

Migration: For theoretical and operational reasons, only recent internal migration flows are considered, based on the census question of the place of residence on an earlier fixed date, usually 5 years (White 2016, Rodriguez and Rowe, 2018a). This population mobility is most linked to the processes of demographic redistribution and productive relocation, and can be measured with population census micro-data. It is also noted that international migration is a missing link in the analysis. The most disaggregated territorial scale offered by censuses is used to identify migrants, usually the Minor Administrative Division (MAD) which is called a municipality, canton, commune or district depending on the country.

Definition of nearby area: as it is a delimitation that depends on each city and each country, it always has a significant conventional component and its specification is crucial to the measurement result. At least two definitions of proximity, which originate environments or rings, are used. In some cities these environments are three or more. Distances will vary between countries according to their geographical extent, morphology and population distribution pattern.

Finally, in order to operationalize the notion of concentrated deconcentration, two demographic dimensions are considered: population concentration and migratory attractiveness. In the case of demographic concentration, at least one of the following two conditions must be met: (i) the relative weight of urban agglomeration on the country's total

population tends to fall; or (ii) the relative weight of urban agglomeration on the country's total urban population tends to fall. With regard to immigration attractiveness, there are also two conditions, but both must be met. The first is that the city is net emigration, because by definition migration pays for deconcentration only if it is negative. The second concerns observation whether the city's ejecting status is due to the exchange with its nearby environment, then the migratory loss may correspond, rather, to an extension of the functional scope of the city and to a strengthening of its long-term demographic, territorial and socio-economic gravitation, i.e. in the antipodes of deconcentration. Thus, si the city reduces its relative weight in the total or urban population and the net emigration of the city is fully explained by its bilateral exchange with the rest of the country, there is no doubt that this is a genuine deconcentration. At the other end, if the city reduces its relative weight in the total or urban population, but its net emigration is explained only marginally by its bilateral exchange with the rest of the country, since the bulk is due to its exchange with its surroundings, genuine deconcentration is marginal, and a process of concentrated deconcentration is under way.

Results y discusion

Based on the above criteria, data from five metropolitan regions of Latin America are analyzed concerning their position in terms of the distribution of the total and urban population in the national territory and on the migration exchanges of that area with other areas of countries classified according to criterion of proximity or territorial integration between them. The results show the diversity of situations in the region.

Thus, Four of the five urban study agglomerations reduce their participation in the total population and urban population of their country, with the exception of the Metropolitan Area of Greater Santiago (MAGS), which continues to increase its weight in the total population, and until very recent times begins its participatory loss with respect to the national urban population. One aspect to consider has to do with the degree of primacy of urban agglomeration. When the indicator is very large we are talking about that there is a noticeable difference between the size of the metropolis under study and the other urban areas of the country. In the case of the Metropolitan Zone of Mexico City (MZMC), its primacy is 1.8 times greater than the three metropolises that follow it in the system of cities of Mexico, which shows its importance. It is remarkable what happens with Costa Rica's Gran Metropolitan Area (GMA) which concentrates 50% of the national population and 90% of industrial, commercial and service activities. Moreover, the Metropolitan Region of Sao Paulo (MRSP) in Brazil, while not registering a high degree of primacy, maintains its importance in the years considered by continuing to receive migrants.

Another indicator that helps to understand the dynamics that follow the urbanization process in the agglomerations studied has to do with the migration flows that occur between the central metropolis and the other urban areas of the country. Of the metropolises presented in this work, two of them, MRSP in Brazil, and GAM of Costa Rica, can be classified within the group that registers a concentrated deconcentration. MZMC, in Mexico, recorded genuine, albeit partly significant, deconcentration. The other two metropolises, the MAGS in Chile, and the Montevideo Metropolitan Area (MMA) in Uruguay, rather record a real, albeit discrete, deconcentration.

What have been the conditions that gave rise to the urban processes observed in the metropolises studied? For MRSP, although it observes some deconcentration, it is not

configured as such, if it is considered that some of its recorded population losses occur towards its nearest environment, leading to the thought that the deconcentration-concentrated hypothesis is the most acceptable. As far as Costa Rica's GAM is concerned, in migration terms it has undergone major changes: almost half of the movements occur only among the cantons that make up the GAM. Its central area has undergone population deconcentration processes and has increased the total and urban concentration in both the nearest environment and the peripheral. In the case of the MZMC in Mexico, a regional crown of metropolises has been set up in its area of influence, where a dozen cities and metropolitan areas with more than 100 thousand inhabitants are located, which concentrate about 10% of the total population of the country. The dynamics of internal migration in Mexico have been characterized as a preferably urban flow, which tends to decrease in intensity and volume, and has recorded a change in the migration balance as it shifts from net immigration to net expulsion. Migration from this metropolis has followed centripetal forces from its regional crown, and centrifugal forces to the rest of the national territory. Such dynamics have revealed a process of genuine deconcentration, although partly significantly concentrated.

The WMA in Uruguay has shown positive migration balances during the last three censuses; hence it continues to concentrate the country's population. However, international emigration between 1980 and 2010 led to the concentration not being reflected in an increase in its demographic weight. While the concentration process slows down, positive balances in its exchange with the rest of the country are declining, and alternating bilateral balances are observed with the two nearest environments, total balances do not define effective deconcentration, but a redistribution of the country's total population over the coastal areas of the national territory. Finally, GGGs in Chile is a case for the debate on the deconcentration of city systems in Latin America, because Chile is the country where the neoliberal experiment began and had its most orthodox and profound expressions. Sand expected a demographic deconcentration, however, the results do not validate this expectation: there is an upward trend of the relative weight of MAGS in the total population, although for the national urban population a slight fall is verified. El MAGS shows a marked inflection of the migratory profile, which after being very attractive for almost the entire twentieth century becomes negative towards the end of the twentieth century and the entire 21st century. However, the analysis concludes that the magnitude of the deconcentrating effect is marginal, as the bulk of GGGs's bilateral migration loss is with its environment and not with the rest of the country.

In short, while trends in the economic restructuring period may suggest a movement of significant deconcentration in urban study agglomerations, that did not happen with the expected force. However, there were changes in spatial redistribution of the population. This situation is explained by two factors: on the one hand, even with some economic deconcentration, the scenario observed in the 1990s and 2000s in terms of labor market has been different from what was observed in the first periods of urbanization and concentration. On the other hand, economic and social articulations between different regions have expanded with the advancement of means of transport and communications, having an impact on the residential location of the population as the transfer from the place of residence to the workplace has become faster.