

THE STRUCTURE OF EMPLOYMENT CENTRES IN THE METROPOLITAN REGION OF SANTIAGO (CHILE): SPACIAL AND FUNCIONAL CENTRALIZATION

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I. APPROACH AND OBJECTIVES

Recent developments in large metropolitan entities is characterised, among other aspects, by the formation of complex structures of a multi-centred nature whose functional and spatial organisation goes from roughly defined hierarchies to more or less diffused reticulated configurations

The predominant direction of research in the literature on the subject maintains that large cities tend toward convergence in polycentric models of functional and spatial organisation whose centres are made up of a mesh of complex variables. However, other critical approaches to this idea argue that not all large cities follow this pattern and, much less, at the same pace.

This paper addresses the study of the structure of the Metropolitan Region of Santiago de Chile (RMS) in relation to this thesis through the analysis of the spatial distribution of the employment centres and their specializations, and of the work-to-residence distances.

The starting assumptions made are that in the RMS there have been movements of spatial dispersion of the population, employment, and of the economic activities driven by the

processes of globalisation and the fragmentation of the territorial administrative framework. However, the importance of the historical centre in the urban structure is still very strong even accentuated if the north-eastern sector, spatially adjacent to the main centre, is added which produces a hierarchical bicentric model. The configuration of the street network and accessibility, as well as the central location of the State administration, are relevant factors in shaping this model.

II. METHODOLOGY AND DATA

The variables most often used to investigate the extent and forms of polycentricism are jobs and economic activity. The principal attributes retained are their location and their classification by type of activity.

The most widely used method to identify employment cores is that of *cutoffs*: in this paper we have adopted specific values and criteria in order to establish thresholds (*cutoffs*) in line with the spatial units used: the communes. In addition, we have included the following fundamental variables: a) the distance between residence and the employment centres; b) the specialisation of the employment centres measured by the coefficient of location; c) the diversity of the employment centres, expressed by the Theil Index.

The basic data comes from the 2002 Population and Housing Census published by INE (National Institute of Statistics), and which was obtained by processing (by REDATAM program) the following variables: municipality of residence, municipality of employment, and sector of activity (*giro*). The derived key indicators were; a) resident employed population (POR) which represents the subset of people living in the municipality who are employed (either in their municipality or another), and b) local workplaces (LTL), which are equivalent to the number of jobs in a municipality (occupied by both residents of the municipality and those who commute from other municipality). For the entire RMS value for each indicator is the same.

The distances travelled between residence and workplace have been calculated in kilometres via the shortest route on the network of streets, roads and highways. The digital model of the network used has been provided by the Open Street Map, slightly modified with information from the National Cartographic Database (BCN, The Integrated System of Territorial Information of the Chilean National Congress Library).

III. RESULTS

The results confirm that the spatial distribution of employment in the RMS is structured by multiple cores connected by the principal routes. The analysis shows, on one hand, the strong concentration of jobs in the historical centre (municipality of Santiago) and in several municipalities of north-eastern sector (Providencia, Las Condes, Vitacura) and, on the other hand, the high spatial clustering of the remaining centres around the main macro-core. Additionally, functional specialisation is very clear: most of the financial activities and advanced business services are located in the major centres; other employment sub-centres specializes in industrial production or collective services to the population.

Although the jobs are distributed in various, clearly differentiated, employment cores, it can be argued that their structure is not polycentric-relational but rather centralized, both spatially and functionally, and hierarchical as well. In other words: it is more similar to other large cities in Latin American and Europe than those in North America. In general terms, this is a monocentric or bicentric system whose spatial dispersion is moderate.

It can be put forward specific reasons to explain this spatial configuration of the LTL in the Metropolitan Region of Santiago: a) the power, both real and perceived, of the historical centre as the main financial and economic nucleus, as well as being an exceptional place for leisure activities; b) in part, the importance of the historical centre is due to the influence of the status of State capital, both directly through job positions of central administration and, indirectly, due to prestige, or the physical proximity to the centres of power, and c) the processes of the decentralization of activities or the creation of other new activities, especially advanced services (closely linked to globalisation), are extremely selective and new jobs are preferentially located in the northeastern municipalities or those adjacent.

It is very likely that this model of employment localization evolves toward a less concentrated and more spatially disperse structure. If so, the changes will preserve the current spatial and relational continuity, this is to say that, the increase in polycentricity will result from the creation of nuclei near the main centres or that have good connections with them.

