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DEMOGRAPHIC GROWTH AND URBANIZATION IN MEDIUM- SIZED MUNICIPALITIES: CHANGES IN THE REGIONAL URBAN DYNAMICS OF RIO GRANDE DO SUL

CRESCIMENTO DEMOGRÁFICO E URBANIZAÇÃO EM MUNICÍPIOS DE PORTE MÉDIO: ALTERAÇÕES NA DINÂMICA URBANA REGIONAL DO RIO GRANDE DO SUL¹

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Abstract

The medium-sized municipalities and their cities having been drawing attention lately due to their population growth and the new functions they perform, especially as articulators of the deconcentration of economic activity and population dispersion, as they contribute to the development of urban agglomerations of the urban network of non-metropolitan regions. This study presents an analysis of the medium-sized municipalities of Rio Grande do Sul (RS), introducing the debate about the processes of urbanization and population concentration in a regional context. Demographic data of the municipalities of RS were analyzed, with emphasis on population growth from 2000 to 2010. A process of population concentration was identified in urban agglomerations and in larger cities. In addition to the metropolitan region of Porto Alegre, with the largest population concentration, there is a polarization of urbanization over the territory, whose spatial distribution is largely due to the non-metropolitan medium-sized municipalities. The data analyzed indicate that the medium-sized municipalities have obtained a considerable population contribution in the last decades, which leads us to reflect on the transformations of the urban space that they experience, considering that the demographic size provides greater intensity and complexity in the socio-spatial dynamics of the intra-urban spaces of these cities. The demographic, economic and urban growth experienced by these medium-sized municipalities has also contributed to changes in the regional urban dynamics of the state of Rio Grande do Sul, as well as in the dynamics of organization and functioning of its urban network.

Keywords: Demographic growth, Medium-sized municipalities. Urbanization. Urban dynamics of Rio Grande do Sul.

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Resumo

Os municípios de porte médio vem se destacando na atualidade em decorrência do seu crescimento populacional e pelas novas funções que estas exercem, especialmente, como articuladoras da desconcentração da atividade econômica e dispersão da população, na medida em que contribuem para o desenvolvimento de aglomerações urbanas da rede urbana de regiões não metropolitanas. Este estudo apresenta uma análise de municípios de porte médio do Rio Grande do Sul, trazendo o debate sobre os processos de urbanização e concentração populacional em contexto regional. Foram analisados os dados demográficos dos municípios do RS, com ênfase no crescimento populacional no período de 2000 a 2010. Identificou-se um processo de concentração populacional em aglomerados urbanos e em cidades de maior porte. Além da região metropolitana de Porto Alegre, com a maior concentração demográfica, verifica-se uma distribuição espacial da população com polarização da urbanização de municípios de porte médio não metropolitanos. Os dados analisados apontam que esses municípios obtiveram um aporte populacional considerável nas últimas décadas, o que leva a refletir sobre as transformações do espaço urbano que estas experimentam, considerando que o tamanho demográfico propicia maior intensidade e complexidade das dinâmicas socioespaciais intra-urbanas. O crescimento demográfico, econômico e urbano experimentado por esses municípios, tem contribuído também para alterações na dinâmica urbana regional do estado do Rio Grande do Sul, incluindo as mudanças na organização e funcionamento de sua rede urbana.

Palavras chaves: Crescimento demográfico. Municípios de Porte Médio. Urbanização. Dinâmica Urbana Regional do Rio Grande do Sul.

Introduction

Some studies and reports have emphasized the role of medium-sized Brazilian municipalities in contemporary times, showing their growth, both in number and in population, and their importance in the process of deconcentrating urbanization and population, and metropolitan activities, as these municipalities have increasingly attracted capital investments and population migrations. The idea of a better quality of life in these locations compared to large cities, due to lower crime and pollution rates, shorter commuting times, more affordable housing costs and a greater offer of green areas is also considered. Additionally, such cities also have advantages that are often scarce in small towns, such as access to culture and education and job offers (AMORIM FILHO; SERRA, 2001).

In Brazil, according to data from IBGE, the municipalities that grew the most in population, from 2000 to 2010, were the medium-sized ones, that is, those with between 100 and 500 thousand inhabitants⁴. Among these municipalities, it is noteworthy that, in addition to national capitals and municipalities surrounding or under the influence of big cities, municipalities in non-metropolitan areas have also had considerable growth⁵ and have been showing high participation rates in the total Brazilian population in recent decades⁶.

Therefore, these municipalities have great potential for urban expansion, densification, and development, even though they also have the challenge of facing the typical problems of large cities. With population growth and urban concentration⁷, socio-spatial inequalities, housing deficits, environmental degradation scenarios, and precarious urban infrastructure may occur. The socio-spatial dynamics of these municipalities reflect contradictions present in Brazilian cities, in line with the logic of capitalist production.

⁴ Municipalities with populations between 100 and 500 thousand inhabitants had a percentage of population growth per year of 1.60%, followed by municipalities with 50 to 100 thousand inhabitants, with 1.40%; those of 20 to 50 thousand had 1.12%; those with more than 500 thousand inhabitants had 1.07%, and those with less than 20 thousand inhabitants had 0.63% (IBGE, Demographic Censuses, 2000 and 2010).

⁵ The municipalities within this group (with a population between 100 and 500 thousand inhabitants) belonging to metropolitan regions grew 1.72%, while those not belonging to metropolitan regions grew 1.48% (IBGE, 2010).

⁶ According to research conducted by LIMA; STADUTO; STAMM et al (2013), non-metropolitan municipalities with an urban population between 100 and 500 thousand inhabitants were those that grew the most in terms of population representation in Brazil in recent decades

⁷ The urbanization rate of Brazilian municipalities with a population between 100 and 500 thousand inhabitants is 94.5% (IBGE, 2010).

Additionally, medium-sized cities are of crucial importance for greater balance in the structuring and functioning of the urban network, since they play roles in generating and intermediating diverse flows (population, goods, capital, information, ideas, among others) that circulate in the geographical space, notably at regional and national scales, among which are the medium and small cities and the rural areas that make up their region of influence. Thus, in addition to the problems arising from the urbanization process, it is also necessary to understand the functions of these cities in a broader context, beyond their intra-urban limits.

This article intends to contribute to the debate on medium-sized municipalities and their urbanization process, focusing on the processes of population concentration in Rio Grande do Sul (RS), in order to identify the role of these municipalities in the regional context and their representativeness in the state urban dynamics. To this end, the demographic growth of the municipalities of Rio Grande do Sul will be analyzed, taking into account their total population and the degree of urbanization, with emphasis on the period from 2000 to 2010, aiming at identifying the patterns of population concentration, according to the size of the municipality and its location in the territory of Rio Grande do Sul.

Cities of medium-sized municipalities: a brief definition

In the scope of the social sciences, and taking into consideration the current technical, scientific, and informational contents about the geographical space, there is no consensus regarding the conceptual definition of cities of medium-sized municipalities. In general, their population size is considered a relevant variable. Such cities are also defined by their functional characteristics or by their role, as a link between local centers and national metropolises, but also between local centers and global centers in the world network of cities (BRANCO, 2007).

According to Amorim Filho and Serra (2001, p.2):

Unlike the metropolitan phenomenon, whose well-defined specificities have given rise to the institutionalization of these territories in many countries, the definitions of medium-sized cities are much more subject to the objectives of their researchers or public policy makers.

It is pertinent to emphasize that the larger the demographic size of the municipality, especially its urban population, the greater the dimension and complexity of its urbanization process. Whether expanding spatially, either horizontally or vertically, or expanding and diversifying its urban economy. This also indicates, in the same regional context of income and cultural pattern, more complex economic activities, involving the city and its space of relationships, enabling the development of productive specializations and urban functions. In turn, the development of urban functions leads to a demographic increase and the multiplication of non-basic or existing activities (CORRÊA, 2007). Thus, Corrêa (2007) states that it is necessary to consider the combination of three points when qualifying medium-sized cities: demographic size, urban functions, and organization of intra-urban space.

The definition criterion regarding demographic size takes the base of the urban population as a proxy for the size of the local market, and as an indicator for the level of existing infrastructure and degree of concentration of activities. In this sense, although the maximum and minimum demographic limits of a given group of cities may be questionable, there are parameters in each historical period that are defined for the most varied regions of the world (AMORIM FILHO; SERRA, 2001).

For the purposes of this article and for analyses of the urbanization process of medium-sized municipalities in Rio Grande do Sul, the classification defined by the Brazilian Institute of Geography and Statistics (IBGE) will be used: it categorizes such municipalities as those whose total population ranges from 100 to 500 thousand inhabitants.

The Brazilian urbanization process and the importance of cities of medium-sized municipalities

The Brazilian urbanization process, intensified since the 1970s with the advance of industrialization and also with the structurization and greater specialization of commerce and services, reaches, although with various intensities, practically the entire territory,

spreading in a wide urban network that includes, in addition to national metropolises, regional metropolises, medium-sized cities, and urban centers.

The transformations resulting from the expansion of agribusiness through the technological modernization of production, selective use of labor and expansion of land concentration have led to the growth and urbanization of the so-called “agribusiness cities”, whose dynamics and urban economy are entirely connected with the performance of production and export of commodities, as analyzed by ELIAS (1993) and CASTILLO et al (2016).

In turn, since the late 1990s, in the country and also in Rio Grande do Sul, there has been an ongoing process of deconcentration and relocation of industrial activity from metropolitan areas to the cities of medium-sized municipalities located in productive regions, near the main roads or on the periphery of metropolitan areas, with urban economies, labor market and territorial structures already consolidated.

Another process to be taken into account in the Brazilian urbanization dynamics concerns the rural flight not only from agricultural regions that experience the exclusive modernization of agricultural activities, reduction of rural employment, and concentration of land, but also from rural regions that suffer from economic stagnation and the growing fragmentation of small rural properties.

Such processes have produced demographic growth in countless urban centers, forming a relatively decentralized distribution, which creates a very complex scenario, in which agglomerations of different sizes are added to the metropolises, which still constitute the dominant element of the urban system (BARCELLOS; MAMMARELLA, 2010).

In this period, medium-sized cities emerge as an alternative for the diffusion of the country’s economic development and dispersion of the population, aiming at the retraction of the metropolitan phenomenon. Thus, they attract the attention of government programs formulated in the National Development Plan of Brazil (II PND) and in the political arena in 1975. In the following decades, there is a discontinuity in the preparation and implementation of such programs, due to changes in the interests of government policy, which began to favor sectorial planning (BRANCO, 2007).

With the knowledge acquired in the 1970s, especially with the pioneering French planning experiences, Amorim Filho and Serra (2001, p.9) point out the attributes that qualify medium-sized cities at the time in this way:

- constant and lasting interactions both with their subordinate regional space and with urban agglomerations of higher hierarchy;
- sufficient demographic and functional size so that they can offer a very wide range of goods and services to the micro-regional space connected to them; sufficient, in other aspect, to play the role of centers of regional economic growth and to generate urban economies necessary for the efficient performance of productive activities;
- possibility of receiving and fixing migrants from smaller cities or the countryside, through the provision of job opportunities, thus functioning as interruption points for migratory movements towards large cities, which are already saturated;
- conditions necessary for the establishment of dynamic relations with the micro-regional rural space that surrounds them; and
- differentiation of intra-urban space, with a functional center already well individualized and a dynamic periphery, evolving according to a model very similar to that of large cities, i.e., through the multiplication of new peripheral housing units.

In the 1990s, with the transformations caused by the globalization process, by the new productive dynamics, with the economic opening and the new technological and communication processes, territory and urbanization are given new dimensions, producing a new urban hierarchy. This process, which increases the polarization power of large urban agglomerations, also affects the entire urban network and puts medium-sized cities in evidence again (BRANCO, 2007).

In this sense, Amorim Filho and Serra (2001) state that medium-sized cities had new functions (in addition to those already known since the 1970s), which arose as a result of the process of globalization. One of these functions is related to the expansion of the role of these cities in the articulation of different flows of raw materials, goods and capital between rural areas and small

cities in their regions of influence and the metropolises, in the transport and development axes or corridors; the other refers to their participation as structurers in their regions of influence of networks of all kinds, such as business networks, public service networks, information networks, and finally; in the development of technological networks, hosting technopoles.

The authors also talk about the influence of new modernity paradigms, which medium-sized cities are in a privileged situation to meet (AMORIM FILHO; SERRA, 2001, p.30):

- the first covers the various conditions that made good “quality of life” possible for most people in a given place;
- the second includes the intertwined issues of “heritage”, mainly historical/urban, and the growing search for “identity”, by several different human groups, which introduces great difficulties, as great are the urban agglomerations; and the third involves the themes, also intimately interconnected, of social and individual “perceptions, values, motivations, and preferences”, aspects highly correlated with the intensity and the direction of the increasing “tourist flows” of human masses.

However, current trends indicate some very complex and paradoxical spatial dynamics, with concentration, deconcentration and selectivity. Although large urban centers still retain population and have great attractiveness, urbanization has increasingly become polynucleated, with the advance of regional centers. In this sense, regional development strategies, focused on territorial dimension, have proved to be a great goal to be pursued, with the strengthening of a network of medium-sized cities that manage to become vectors of development, enhancing flows of goods, services and people and contribute to the use of more rational territorial resources (BRANDÃO, CASTRO, NETO, 2017).

Undeniably, cities of medium-sized municipalities represent important spaces in the context of urban networks and are essential to regional development. They constitute a structuring element for the spatial balance of the urban system, due to their centrality and capacity of intermediation and articulation that they have in the regional territory where they are located, thus being able to contribute to the reduction of regional disparities, in addition to providing a better quality of life for their inhabitants and opportunities for the inhabitants of their regions of influence.

Brief historical overview of the urbanization of Rio Grande do Sul

The state of Rio Grande do Sul presented, throughout its historical process of territorial formation, changes in its spatial configuration and in its dynamics of urban development that made up the current territorial arrangement. This trajectory reflects the distribution of the population over the territory and the socioeconomic structure of each region, being the basis for understanding medium-sized cities and their functions and characteristics.

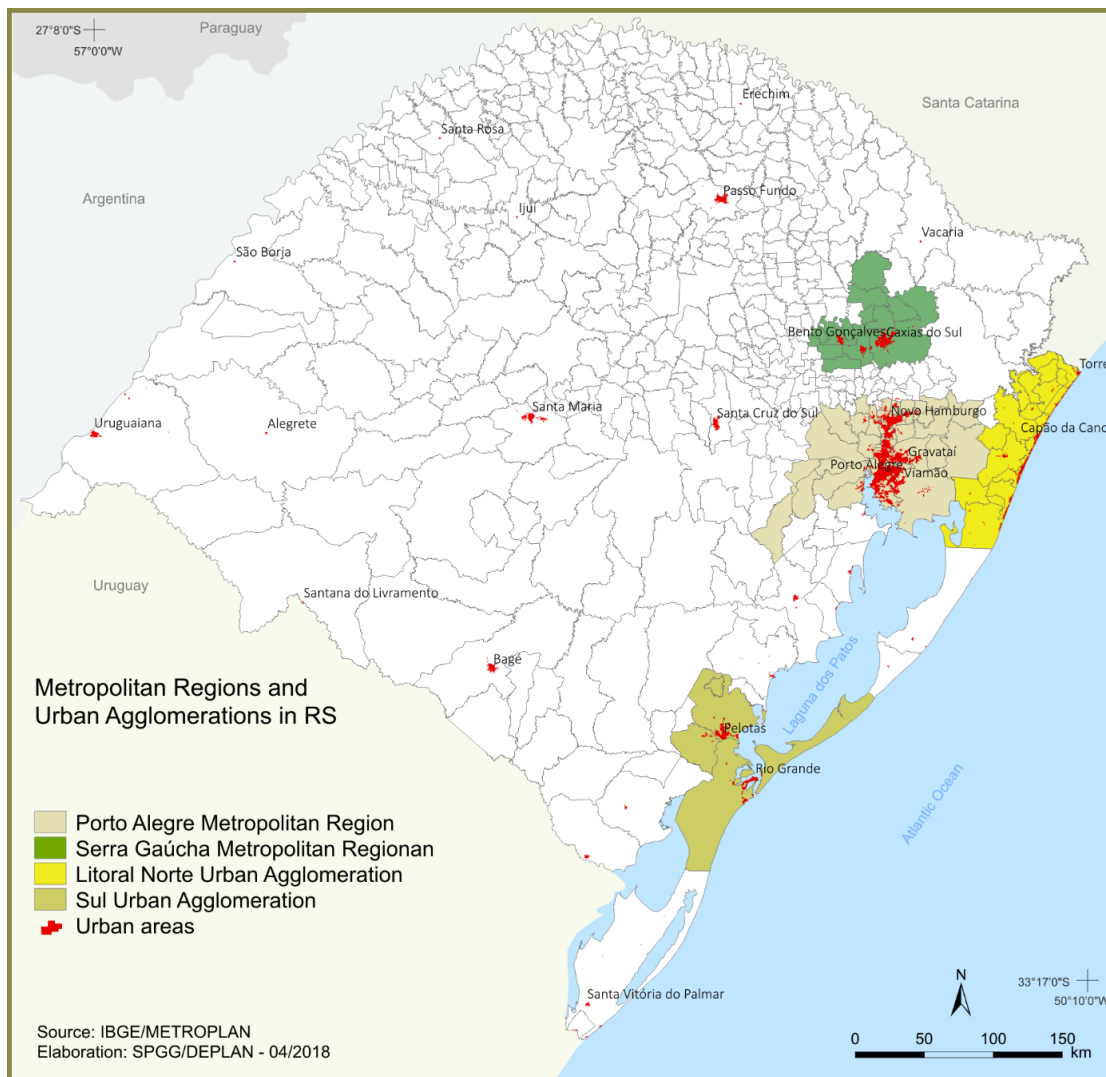
Initially, the first stage of the State’s territorial formation was in the south, through the use of characteristically agrarian territories, where large properties, livestock, and rice fields were common (ALONSO; BANDEIRA, 1990). The southern urban network, with fewer centers (albeit larger) and with few levels of hierarchy, had the polarizing power of jerky-based economy (production, commercialization, and export), which took place in the cities of Pelotas and Rio Grande, constituting the most dynamic portion of the economy until the middle of the 19th century (SOARES, 2011). The northern region, at that time, was economically more backward. Porto Alegre, the main urban center of the region and the province’s capital, with predominantly administrative functions, was unable to compete, in terms of economic dynamism, with the southern region (ALONSO; BANDEIRA, 1990).

The northern region started to have greater economic development in the second half of the 19th century, with immigrants arriving from Germany and Italy. Based on small properties and diversified agricultural production, the urban network was formed with a greater number of urban centers, although with a predominance of small centers, and had as main centers the cities of São Leopoldo (German colonization) and Caxias do Sul (Italian colonization) (SOARES, 2011). Colonization favored the rise of Porto Alegre as the main economic center of the state. It was from there that colonial products were exported to the center of the country, and it was also the wholesale center for imported manufactured products (ALONSO; BANDEIRA, 1990).

By the half of the last century, there was a decline and stagnation of southern livestock, which was consolidated with the emergence of the industry, forming one of the main characteristics of the future spatial configuration of Rio Grande do Sul's economy: "a more dynamic and economically more diversified north and a slow-growing south with a more specialized productive structure" (ALONSO; BANDEIRA, 1990, p.74).

The great change in the spatial configuration of the state's economy happened over the second half of the last century, with increasing industrialization, concentrated in the northeast, on the Porto Alegre–Caxias do Sul axis, and with large urban agglomerations that were forming as the agricultural activities became less expressive (ALONSO; BANDEIRA, 1990). Thus, population growth occurred mainly in the northeast, forming over time three urban agglomerations: the Metropolitan Region of Porto Alegre (RMPA), polarized by the capital, Porto Alegre; the Metropolitan Region of Serra Gaúcha (RMSG), under the influence of the city of Caxias do Sul, an important industrial and service hub in that region; and the urban agglomeration of the North Coast (AULINORT), a result from the intense urbanization process of the cities in the north coast, under the commercial and services command of Capão da Canoa and Torres. In the south, there is the Southern Urban Agglomeration (AUSUL), which has a primarily agrarian regional structure, but with an active urban economy of commerce and services in Pelotas, and industry in Rio Grande, as shown in Image 1.

Image 1: Metropolitan Regions and Urban Agglomerations in Rio Grande do Sul



Source: Atlas Socioeconômico do Rio Grande do Sul, 2018.

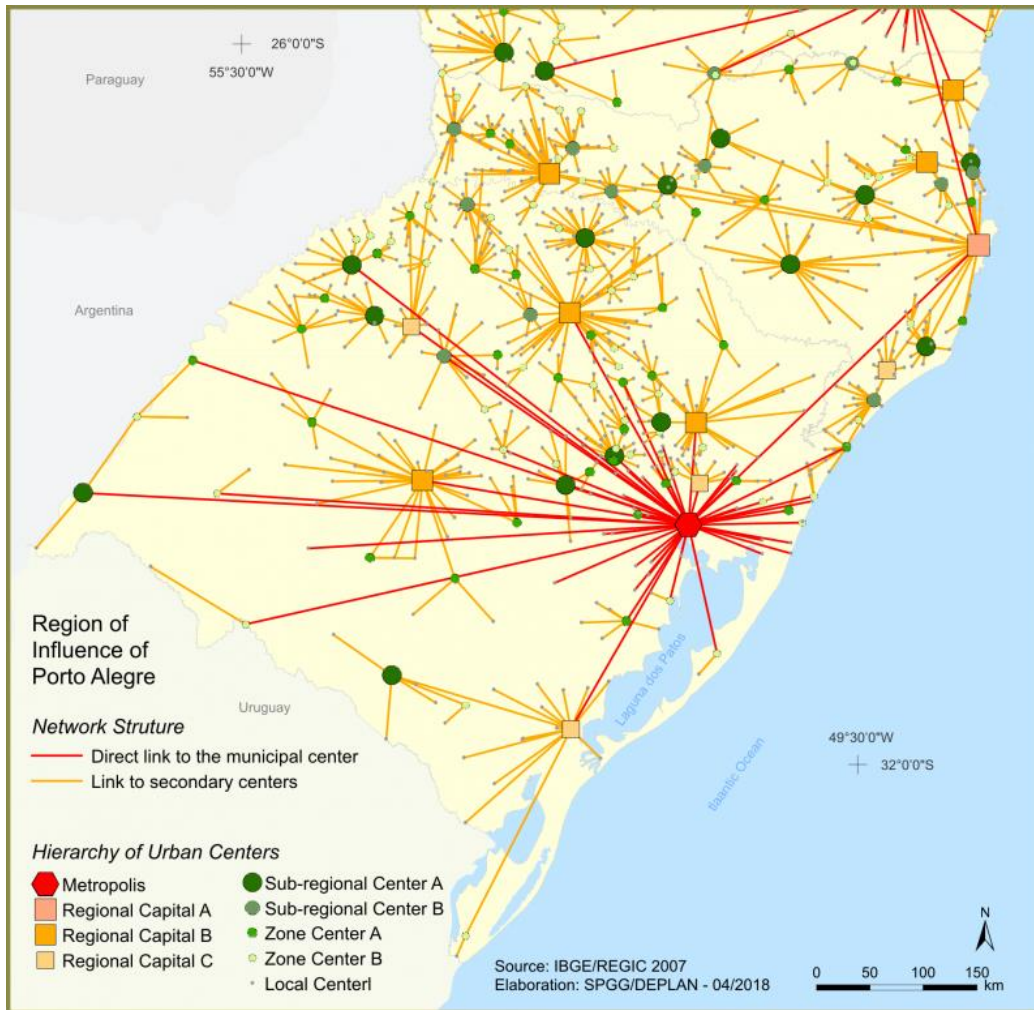
In addition to these institutionalized urban agglomerations (Image 1), Alonso (2009) Alonso states that there is emergence of at least two other discontinuous non-metropolitan agglomerations, one led by Santa Maria involving the cities of Júlio de Castilhos, Itaara, Restinga Seca, São Martinho

da Serra, São João do Polêsine, and Formigueiro, and another in the city of Passo Fundo and its articulation with the cities of Carazinho, Erechim, Marau, Coxilha, and Mato Castelhano. The author says that these cities, although they do not constitute a conurbation with the surrounding cities, have other relationships that were taken into account in his study: “strong ties of integration are observed, revealed by pendular movements for the purpose of study and/or work and also by passenger flows of the regular intercity public transportation lines” (ALONSO, 2009, p.1)

There are also other agglomerations in formation, one consisting of the cities of Santa Cruz do Sul, Venâncio Aires, Lajeado, and Estrela, linked to the metropolitan deconcentration process of Porto Alegre, and another represented by the Municipalities of Ijuí, Santo Ângelo, Cruz Alta, Panambi, Santa Rosa, and Horizontina. According to Alonso (2009, p.6), a survey conducted by IPEA, IBGE, and UNICAMP (2000) considered these urban centers, respectively, as Expanded Metropolitan Agglomeration and Discontinuous Agglomeration.

Regarding the state’s urban network, it is also relevant to mention a study carried out by IBGE, which covered the entire national territory, called “Regions of Influence of Cities” (REGIC), in 2007. In this study, the centrality of Brazilian urban areas, their regions of influence, and the hierarchy of these centers in the context of the national urban network were analyzed. The result (Image 2) points out that Porto Alegre is at the highest level of the classification proposed by IBGE, being identified as an urban center characterized by its large size, by having strong relationships with other metropolises, and by having extensive areas under its influence. Its urban network covers the state of Rio Grande do Sul and also Santa Catarina, sharing this area with Curitiba (ATLAS SOCIOECONÔMICO DO RS, 2017).

In that same study, regional capitals are considered as urban centers that relate to the upper stratum of the urban network and are influent at a regional level. They have three levels of subdivision, thus delimiting the urban centers of Rio Grande do Sul as: regional Capital B — Caxias do Sul, Passo Fundo, and Santa Maria; and regional Capital C — Ijuí, Novo Hamburgo–São Leopoldo, and Pelotas–Rio Grande. In a smaller urban hierarchy, the cities of Bagé, Bento Gonçalves, Erechim, Lajeado, Santa Cruz do Sul, Santa Rosa, Santo Ângelo, and Uruguaiana were classified as subregional centers A, whereas Carazinho, Cruz Alta, and Frederico Westphalen were classified as subregional centers B.

Image 2: Regions of influence of Porto Alegre and urban hierarchy

Source: Atlas Socioeconômico do Rio Grande do Sul, 2018.

Based on this panorama, it is possible to see that there are significant differences in the socioeconomic dynamics of the regions that impact the dynamics of the cities. It has been identified that in the northeastern region of the state there is a greater population concentration and economic dynamism, with the main urban agglomerations and a greater number of urban centers influencing their regions. The southern region, on the other hand, with large properties, agriculture-based economy, and extensive livestock (the natural aspects of that region of Rio Grande do Sul contribute to that), shows less economic diversity, slower growth and a smaller number of urban centers acting as intermediaries in their regions. This reflects the Brazilian pattern of coastal and concentrated occupation and regional inequalities.

In this sense, as Soares (2011) puts it, in order to characterize medium cities, it is necessary to understand the territory in which they are found, for the dynamics of socio-spatial formation are related to the dynamics of these cities. Based on this understanding, the urbanization of the state of Rio Grande do Sul will be analyzed, with emphasis on the role of medium-sized cities in this process.

Medium-sized municipalities in the context of urbanization of Rio Grande do Sul

The urbanization of Rio Grande do Sul followed the trend of Brazilian urbanization⁸, going from a rural majority in 1940 (68.80%) to a predominantly urban population in 2010, with 85.10% of its inhabitants living in urban areas. The phenomenon of urbanization also intensified with the significant increase in the total population, which went from 3,320,689 inhabitants in 1940 to

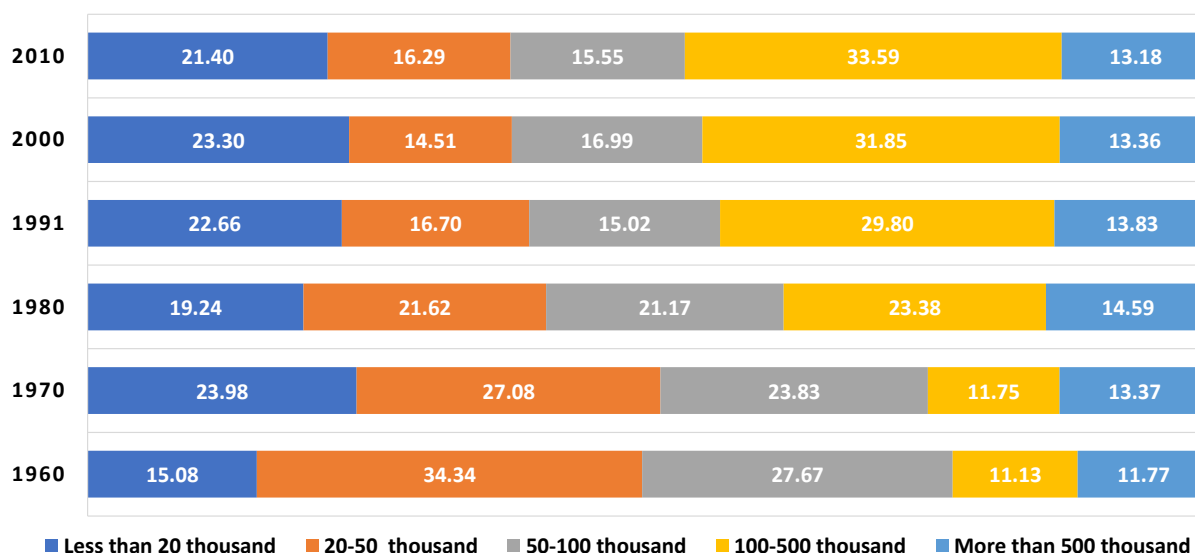
⁸ In 1940, the population of Brazil was 41,236,315 inhabitants, 31.24% of which were urban. In 2010, the population of Brazil increased to 190,755,799, of which 84.36% were urban (IBGE,2010).

10,693,929 in 2010. Of this total population contingent, 9,100,291 inhabitants live in cities, and of this total of the state urban population, 3,447,657 inhabitants (approximately 37.88%) live in cities of the medium-sized municipalities, whose urbanization rate exceeds 84%. When we exclude from this group the cities of the medium-sized municipalities that comprise the Metropolitan Region of Porto Alegre, then we have a total of 1,762,934 urban inhabitants, approximately 19.37% of the state's urban population, distributed in nine medium-sized municipalities located in different regions of Rio Grande do Sul⁹ (IBGE, 2010). These numbers evidence the importance of these medium-sized municipalities in the state's urbanization process.

The high birth rates contributed to the increase of the population, which started to be concentrated in urban areas, due to the rural flight caused by the concentration of land and/or by the modernization of agriculture through the expansion of agro-industrial complexes in the State, as well as in reason of the attraction exerted by the urban economies of bigger cities that presented urbanization dynamics based on industrialization, but also in the expansion and specialization of commercial and service activities. The internal immigration processes have also contributed to the increase in the population of medium and large cities in the State of Rio Grande do Sul (ATLAS SOCIOECONÔMICO DO RS, 2017). The annual growth rates of the total population, quite high until the 1960s, have been slowing down. The last decade (2000–2010) reveals a more pronounced drop in the rate of Rio Grande do Sul, standing out as the lowest number among Brazilian states, at 0.49%, and in the same period, Brazil had a growth of 1.17% per year. The main factor for this phenomenon is the fall in the fertility rate, in addition to the influence of emigration rates, which surpass those of immigration (ATLAS SOCIOECONÔMICO DO RS, 2017).

Regarding the spatial distribution of the total population of Rio Grande do Sul, as shown in Graph 1, it can be seen that from the 1980s on, there was an increasing concentration of the population in medium-sized municipalities, i.e., with a population between 100 thousand and 500 thousand. It is possible to notice that, during this period, the capital, Porto Alegre, the only municipality with a population above 500 thousand inhabitants, had a small decrease in its relative participation in the total population of the state. The group of municipalities with a total population below 100 thousand inhabitants was the one that had the greatest loss in the total population of the State. In 1960, these municipalities represented 77.10% of the total population of the State, and in 2010, this percentage dropped to 53.23%.

Graph 1: Percentage distribution of the total population by municipality size, Rio Grande do Sul — 1960–2010



Source: IBGE, Summary of 2010 Demographic Census.

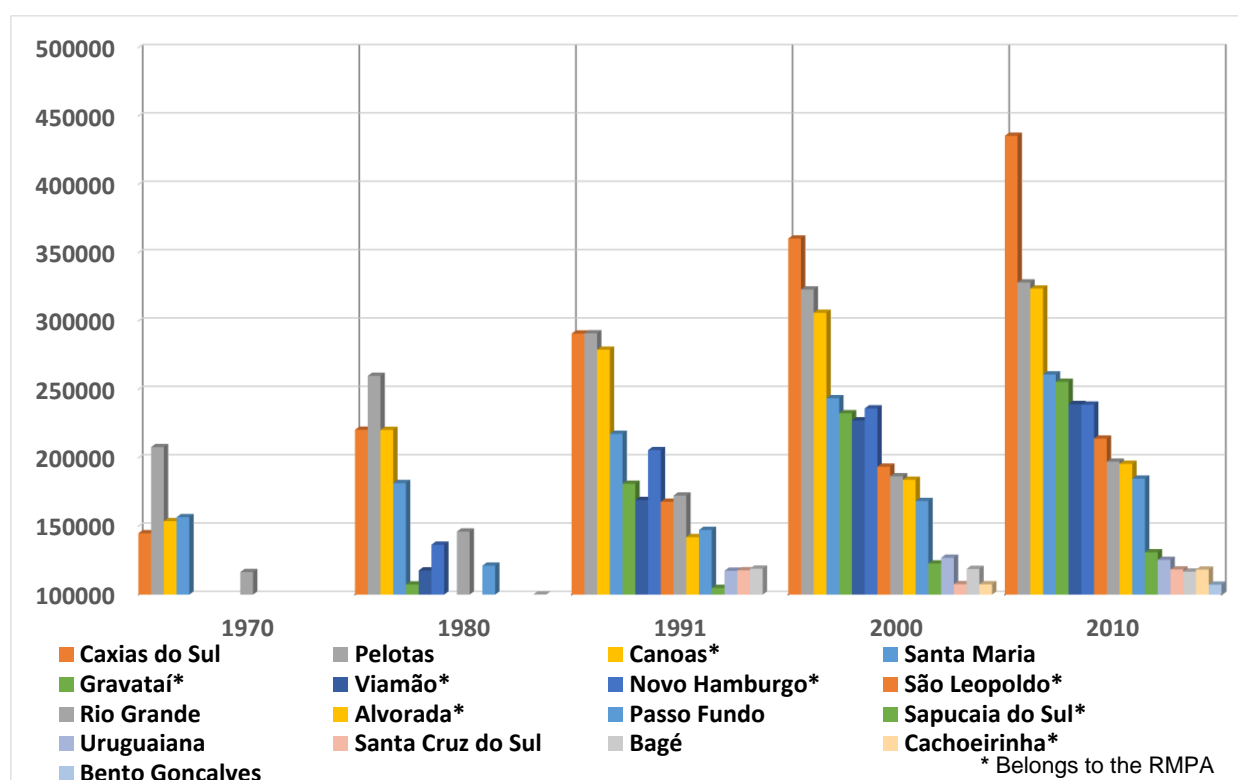
⁹ Those are: Bagé, Bento Gonçalves, Caxias do Sul, Passo Fundo, Pelotas, Rio Grande, Santa Cruz do Sul, Santa Maria, and Uruguaiana.

According to the last Demographic Census of 2010, the State of Rio Grande do Sul has 496 municipalities¹⁰, of which only 18, including Porto Alegre, have a total population above 100 thousand inhabitants, comprehending 46.77% of the total population of the State.

Thus, it can be seen that the population is highly concentrated in a few municipalities. It is also noteworthy that in these municipalities, urbanization reaches higher rates, representing 53% of the total urban population of the State (Porto Alegre represents 15% of that).

At present, considering the 17 municipalities with populations between 100 and 500 thousand inhabitants, 8 belong to the Metropolitan Region of Porto Alegre (RMPA), which shows the metropolitan concentration of population, a phenomenon that occurred in previous decades, especially in the cities bordering Porto Alegre (Canoas, Alvorada, Viamão, Cachoeirinha/Gravataí) and on the metropolitan axis towards Caxias do Sul (Sapucaia do Sul, São Leopoldo, and Novo Hamburgo) — Graph 2.

Graph 2: Total population of the municipalities between 100 and 500 thousand inhabitants, Rio Grande do Sul, 1970–2010



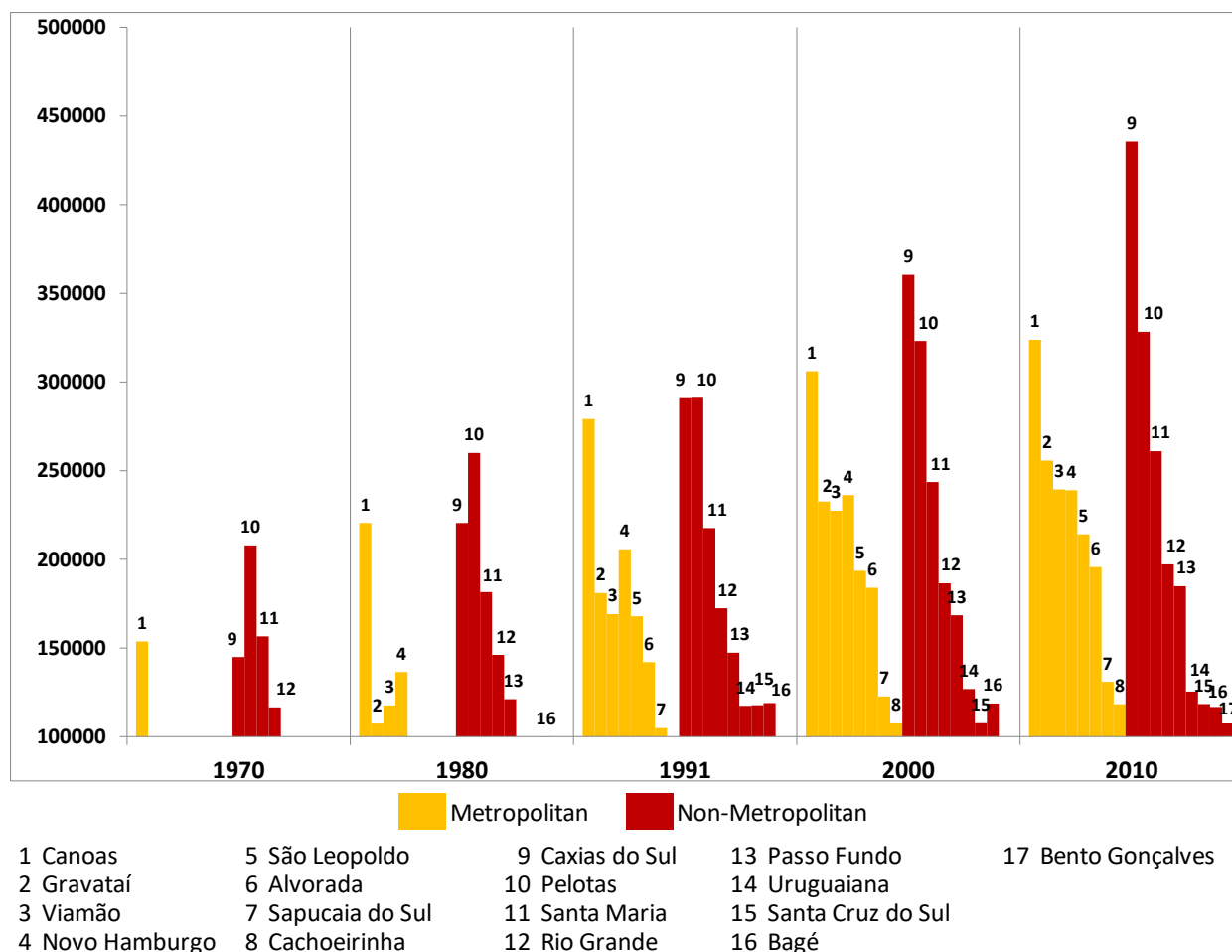
Source: IBGE, 2010.

In addition to the metropolitan phenomenon, other medium-sized non-metropolitan municipalities have emerged as large population concentrators, especially since the 1990s, as is the case in Caxias do Sul, which over the decades has surpassed the population of Pelotas. With the growth of the Serra region, Bento Gonçalves, in 2010, starts to be considered a medium-sized municipality – Graph 3¹¹.

¹⁰ Currently, the State has 497 municipalities, after Pinto Bandeira, which used to belong to the city of Bento Gonçalves, was raised to the status of municipality in 2013.

¹¹ For the analyses of Graphs 2 and 3, the term “metropolitan municipalities” was used for those belonging only to the Metropolitan Region of Porto Alegre (RMPA).

Graph 3: Total population of the municipalities between 100 and 500 thousand inhabitants, according to location (metropolitan and non-metropolitan), Rio Grande do Sul, 1970–2010



Raw data source: IBGE, 2010.

By analyzing Graphs 2 and 3, which show the population evolution of the medium-sized municipalities of Rio Grande do Sul and their location (metropolitan or not), it is possible to see that:

a) In 1970, there were five municipalities with a total population above 100 thousand inhabitants, in addition to the capital, Porto Alegre, which had 885,545 inhabitants. The largest one was Pelotas, which had more than 200 thousand inhabitants, followed by Santa Maria, Canoas (the only one in the RMPA), Caxias do Sul, and Rio Grande;

b) In 1980, there are 11 municipalities with 100 thousand inhabitants. The municipalities of Passo Fundo and Bagé fall into this category, in addition to three municipalities of the RMPA: Gravataí, Viamão, and Novo Hamburgo. Pelotas continues with the highest population, with around 260 thousand inhabitants. Caxias and Canoas exceeded 200 thousand inhabitants;

c) In 1991, five more municipalities come into this category: Uruguaiana and Santa Cruz do Sul, and three more from the RMPA: São Leopoldo, Alvorada, and Sapucaia do Sul. It can be seen that in the 1980s there was a considerable increase in the population of the municipalities of the RMPA and Caxias do Sul, which gets closer to the population size of Pelotas. During this period, the municipalities of Santa Maria and Novo Hamburgo also exceed 200 thousand inhabitants;

d) In 2000, Cachoeirinha, belonging to the RMPA, joined the group with more than 100 thousand inhabitants. During this period, Caxias do Sul surpasses the population of Pelotas, and both exceed 300 thousand inhabitants, followed by Canoas (Porto Alegre already had 1,360,590). RMPA municipalities continue to experience greater population growth. In this group, the metropolitan municipalities of Gravataí and Viamão also exceed 200 thousand inhabitants;

e) In 2010, the municipality of Caxias do Sul emerges as the one with the largest population, reaching almost 440 thousand inhabitants. The municipality of Bento Gonçalves, located in the

current metropolitan formation of the Serra Gaúcha, which has the city of Caxias do Sul as its pole, joins this group. A slower growth of the municipalities of the RMPA is perceived. During this period, the city of São Leopoldo also exceeds 200 thousand inhabitants.

It is worth mentioning that, in these medium-sized municipalities, the population is quite concentrated in urban areas, as shown in Chart 1. The degree of urbanization, already high in many municipalities since the 1970s, especially in metropolitan municipalities, with the exception of Viamão and Gravataí, reaches expressive rates in 2010. The group of non-metropolitan municipalities, on the other hand, had the highest increase in this rate in recent decades.

Chart 1: Degree of urbanization of municipalities with 100–500 thousand inhabitants, Rio Grande do Sul, from 1970 to 2010

Município		1970	1980	1991	2000	2010
Metropolitan	Canoas	97%	98%	97%	100%	100%
	Gravataí	69%	75%	93%	91%	95%
	Viamão	17%	91%	92%	93%	94%
	Novo Hamburgo	95%	98%	98%	98%	98%
	São Leopoldo	98%	96%	96%	100%	100%
	Alvorada	98%	99%	100%	100%	100%
	Sapucaia do Sul	99%	99%	100%	99%	100%
	Cachoeirinha	97%	99%	100%	100%	100%
Non-Metropolitan	Caxias do Sul	79%	91%	91%	93%	96%
	Pelotas	74%	79%	91%	93%	93%
	Santa Maria	80%	85%	90%	95%	95%
	Rio Grande	89%	94%	96%	96%	96%
	Passo Fundo	75%	87%	93%	97%	97%
	Uruguaiana	85%	89%	90%	93%	94%
	Santa Cruz do Sul	38%	55%	67%	87%	89%
	Bagé	66%	70%	78%	82%	84%
	Bento Gonçalves	57%	71%	84%	89%	92%

Source: IBGE, 2010.

Therefore, it can be seen that medium-sized municipalities concentrate a representative portion of the State's population. Since the 1970s, they have been growing rapidly, both in population and in number, if we consider that the number of municipalities with populations between 100 and 500 thousand in 2010 grew from 5 to 17. In the last decades, from 2000 to 2010, there is also population growth in many non-metropolitan municipalities and high rates of urbanization.

Demographic growth, population concentration, and the role of medium-sized municipalities in the state context

As emphasized before, medium-sized municipalities in Brazil stood out in the last decade with the highest rates of total population growth. In Rio Grande do Sul, as shown in Chart 1, it was found that the annual population growth rate of municipalities with 100–500 thousand inhabitants was quite expressive, 0.76%, considering the average growth rate of the State, 0.49%. However, the municipalities that had the highest percentage increase in the annual population growth rate were those with 20–50 thousand inhabitants, which also shows the urbanization process in small municipalities, taking into account that they also have a high degree of urbanization (84.30%).

In terms of absolute growth, the largest increase occurred in medium-sized municipalities, with 100–500 thousand inhabitants, in which there was a population increase of more than 260 thousand inhabitants (Chart 2). In this population range, there were (in 2010) 17 municipalities out of a total of 496 in the State, concentrating 34% of the total population. It is also possible to see that

they have a high degree of urbanization (96%) and demographic density, which is four times higher than the amount of municipalities with a population of 50–100 thousand inhabitants¹².

Chart 2: Demographic figures, by municipality size and urban agglomerations, Rio Grande do Sul, 2010

	Classification	Population in 2000 (areas compatible with 2010)	Population in 2010	Number of Munic. (in 2010)	Participation	Degree of Urbanization	Population Density	Annual Growth Rate	Absolute Growth from 2000 to 2010
Population Size (in 2010)	Total in RS.....	10,187,798	10,693,929	496	100.0%	85.1%	39.8	0.49%	506,131
	Maximum	1,360,590	1,409,351		13.2%	100.0%	2,936.5	4.25%	75,145
	Minimum	1,113	1,216		0.0%	5.5%	1.6	-3.29%	-8,385
	Less than 20 thousand	2,283,891	2,288,339	396	21.4%	56.5%	16.3	0.02%	4,448
	20–50 thousand	1,599,831	1,741,617	58	16.3%	84.3%	27.1	0.85%	141,786
	50–100 thousand	1,612,791	1,663,011	24	15.6%	89.2%	40.0	0.31%	50,220
	100–500 thousand	3,330,695	3,591,611	17	33.6%	96.0%	162.2	0.76%	260,916
More than 500 thousand	1,360,590	1,409,351	1	13.2%	100.0%	2,836.9	0.35%	48,761	
Urban Agglomerations	Total of UA.....	5,193,866	5,629,331	69	52.6%	95.3%	212.9	0.81%	435,465
	Total out of UA.....	4,993,932	5,064,598	427	47.4%	73.8%	20.9	0.14%	70,666
	RMPA.....	3,782,651	4,032,062	32	37.7%	96.9%	389.7	0.64%	249,411
	RMSG.....	622,246	735,276	12	6.9%	91.6%	163.2	1.68%	113,030
	AUSUL.....	557,216	578,034	5	5.4%	92.7%	91.1	0.37%	20,818
	AULINORT.....	231,753	283,959	20	2.7%	86.7%	55.3	2.05%	52,206

Source: IBGE, 2010.

Migrations represent a factor that contributes to the slowing down of the population growth rate of smaller municipalities, in view of displacements towards the municipalities with larger population (ATLAS SOCIOECONÔMICO DO RS, 2017). Many of these smaller municipalities had negative growth rates (51% of the State's municipalities had negative rates, of which only 1% indicates municipalities with more than 50 thousand inhabitants). However, the locational factor also influences the concentration of the population. Many municipalities, even smaller ones, experienced high rates of population growth, especially those located on the coast. Municipalities located in the two Metropolitan Regions (Porto Alegre and Serra) also achieved higher growth rates. The municipalities with the lowest rates of total annual

population growth are concentrated in the regions of the Western and Northern borders of the State (Image 3).

Comparing the rates of total annual population growth, in the period between 2000 and 2010, of the municipalities grouped according to population size (Image 3), it is possible to see that:

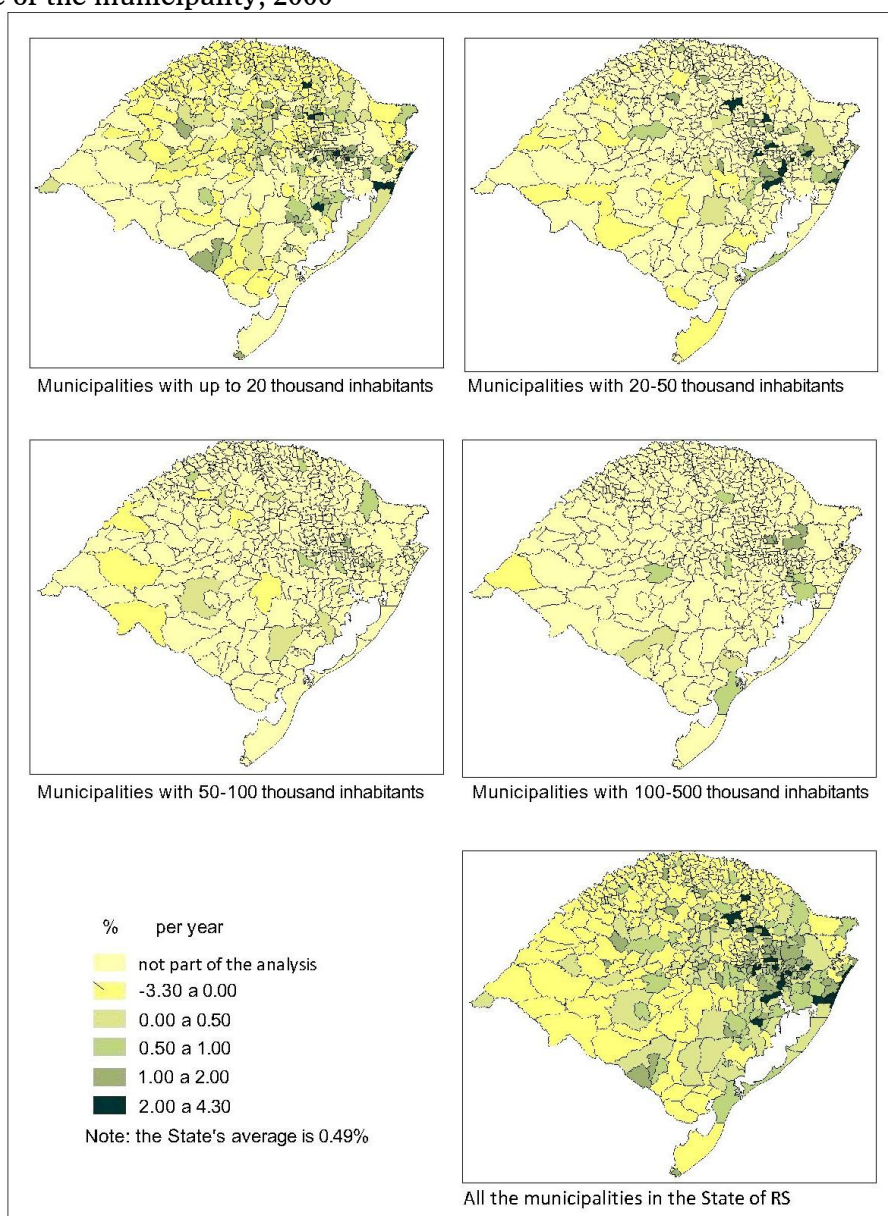
- in the smaller municipalities, with up to 20 thousand inhabitants, many had negative rates (234 municipalities in the group of 396), followed by the municipalities in the 20–50 thousand-inhabitant population range (29 of the total 88);
- smaller municipalities, with a population of up to 50 thousand inhabitants, were also the ones that had the highest growth rates (many above 2%) — those are located mainly on the coast, in the metropolitan region and in Serra (naturally, because they have a smaller population, the increase or decrease of the population in absolute terms, even in numbers that are not very expressive, can result in a considerable percentage);
- the group of municipalities with a population range between 20 and 50 thousand inhabitants was the one that grew the most, reaching an annual growth rate of 0.85%, which represents an important absolute population increase of 141,786 inhabitants; however, the group showed quite divergent variations (the locational factor is decisive, considering that no municipality with a negative figure is part of an urban agglomeration);

¹² The degree of urbanization is the percentage of the urban population over the total population of the municipality. Demographic density is the relation between the number of inhabitants and the territorial area of the municipality, i.e., the figure is obtained by dividing the total population by the area of the municipality in km².

d) the municipalities with population between 50 and 100 thousand inhabitants had very low growth rates, and of the total of 24 municipalities, only 4 were above 1% (not reaching 2%): Lajeado (1.79%), Farroupilha (1.41%), Parobé (1.41%), and Campo Bom (1.07%), located, respectively, in the expansion axis of the RMPA, in Serra, and the last two in the RMPA. This group, formed by 24 municipalities, had 6 with a negative rate and 8 below the state average;

the group of municipalities with 100–500 thousand inhabitants had less discrepant rates, with only one municipality with negative rate, Uruguaiana (-0.12%), located on the Western border. With the exception of Pelotas (0.24%), Bagé (0.17%), and Novo Hamburgo (0.12%), the other municipalities had rates above the state average (0.49%). The municipalities with the highest figures (above 1%) are: Caxias do Sul (1.91%), Bento Gonçalves (1.61%), both in Serra, and São Leopoldo (1.01%), in the RMPA:

Image 3: Geometric annual growth rate of the total population of Rio Grande do Sul, according to population size of the municipality, 2000



Source: IBGE, 2000, 2010.

e) also in the group of municipalities with 100–500 thousand inhabitants, almost all of them belong to urban agglomerations (it should be emphasized that in the coastal urban agglomeration there are no municipalities with more than 50 thousand inhabitants). Except for the municipalities of Santa Cruz do Sul (which is part of the expansion axis of the RMPA) and Passo Fundo and Santa

Maria (important regional hubs). The municipalities of Bagé (located on the Southwestern border) and Uruguaiana (on the Western border) are also not part of urban agglomerations, which had very low rates;

- f) on the map with all the municipalities, there is a spot of the highest growth rates concentrated around Porto Alegre: towards Serra (Caxias do Sul), towards the coast, towards the south, and towards Santa Cruz do Sul and Lajeado/Estrela.

Thus, in the analyses presented here, it was possible to see that two factors were preponderant in the population growth of the municipalities: their size and their regional location. Larger municipalities (over 100 thousand inhabitants) concentrate the population, particularly, in urban areas, and continue to grow demographically. Porto Alegre grows at a less rapid pace, below the rates of most medium-sized municipalities and below Caxias do Sul in absolute terms. The locational factor influences the development of municipalities, including smaller ones. A small municipality located in an urban agglomeration benefits from the advantages that this environment offers, unlike a small municipality that is not there. In this sense, Barcellos and Mammarella (2010, p.236) call into question the proliferation of small municipalities that occurred in Rio Grande do Sul in such a short period of time (235 municipalities were created between 1980 and 2000), reflecting on their administrative capacity and competence in the context of local or regional development. However, they emphasize:

Evidently, the situation of a small municipality is different, whether or not it is located in some agglomerative formation. If so, the repercussions are minimized by the fact that it is integrated in the context of regional synergy; in other cases, the risk is to experience relative isolation with regard to the advantages of urbanization

Larger municipalities tend to receive flows resulting from people who seek to take advantage of specialized urban services offered by those or for work and study purposes. In this sense, studies on pendular movements (commuting) have showed that mobility is essential for the agglomerative issue, providing more complex flows and differentiating functions between municipalities (RIBEIRO, 2009).

According to Barcellos and Jardim (2008), Rio Grande do Sul's commuting activity is quite high, especially between and inside urban agglomerations, and the Metropolitan Region of Porto Alegre is the primary destination.

Therefore, urban agglomerations represent the great expression of urbanization in Rio Grande do Sul, reflecting the population concentration pattern. These agglomerations have 52.6% of the total population of the State and have reached, in the last decade, a population increase of 435,465 new inhabitants — in the other regions of the State, the population growth was six times smaller (70,666 people — Chart 2). Among the urban agglomerations, the metropolitan region of Porto Alegre stands out, with 37% of the population, which also has an area of non-institutionalized expansion, which extends to the north, towards Caxias do Sul, and towards the west, reaching Lajeado/Estrela and Santa Cruz do Sul¹³.

According to Heidrich, *et al* (2016) the RMPA has followed the trends of the world's big cities, with the phenomenon of metropolitan deconcentration and fragmentation. These trends are evidenced by changes in the socio-spatial structure that have occurred in recent years, such as the deconcentration and relocation of industrial spaces in perimetropolitan sectors, the incorporation of new territories, and the tendency to integrate with other urban agglomerations.

However, the pattern of concentration, from the point of view of spatial distribution, can be relativized, in view of a certain dispersion of agglomerations and the main urban centers, representing a favorable situation for solving regional development problems (BARCELLOS; MAMMARELLA, 2010). In this sense, medium-sized non-metropolitan municipalities have an important role in deconcentrating development and forming agglomerations, as they are centers that concentrate population and have urban functions that serve broader territories, being generally

¹³ Alonso (2003, p.102) uses the definition of Perimetropolitan Region of Porto Alegre (RPPA) to refer to the municipalities surrounding the RMPA: "The idea of Perimetropolitan Region came from Rio Grande do Sul (1974). [...] It is a section that partially surrounds the RMPA and represents a transition area between this formation and the Northeastern Urban Agglomeration, being, therefore, an area of expansion of these two agglomerations. In 1974, this section had 42 municipalities, and, in 2001, 53".

relevant regional hubs and cities that play intermediation roles within the urban network. In this sense, Campos and Silveira (2016, p.70) state: “The processes of urbanization and socio-spatial dynamics in non-metropolitan urban agglomerations almost always result from the development and articulation of medium-sized cities”.

Neto et al. (2017, p.57) explain the articulating role of these cities in the context of the urban network as follows:

Medium-sized cities have two functions that may occur more or less intensely: to potentiate and enable local/regional development and provide, in an intermediate manner, services that would be available only in larger cities. Because of this, they have a great articulating role and generate changes in the relations of centrality and dependence of smaller cities in relation to those of greater urban hierarchy.

Within the scope of the dynamics of space production, considering the current globalization process, medium-sized cities, despite having their local peculiarities, follow universal trends. As in the big cities, they also have unequal access to the city and socio-spatial segregation, especially in the last 20 years, with a considerable population increase (CAMPOS; SILVEIRA, 2016). Thus, the importance of an urban planning agenda in these cities is clear, from a local perspective, but also including its articulation with regional planning and national policies for territorial development.

Conclusion

When discussing urbanization processes, it is important to highlight the role of medium-sized cities, as they act as articulators of the urban network.

This research aimed at showing the growth of medium-sized municipalities in Rio Grande do Sul in demographic terms and their relationship with urbanization in the regional and state context. Thus, a process of population concentration was identified in urban agglomerations and in larger cities, whose central point starts in the metropolitan region of Porto Alegre, which has greater population concentration, but expands over the territory, polarizing urbanization, mainly due to spatial distribution of medium-sized non-metropolitan municipalities.

The analyzed data show two factors that were predominant in the population growth of the municipalities in Rio Grande do Sul in the period from 2000 to 2010: their size and their regional location. The medium-sized municipalities, with a total population between 100 and 500 thousand inhabitants, were those that grew the most in absolute terms, and of 17 municipalities, only Uruguaiana had a negative annual growth rate. The smaller municipalities, with up to 50 thousand inhabitants, had very discrepant annual growth rates. Small municipalities, located in urban agglomerations, achieved very high annual growth rates in relation to the state average, many above 2%, which shows the influence of the locational factor.

The analyzed data also point out that medium-sized non-metropolitan municipalities have reached a considerable population contribution in the last decades, emerging as important articulators in the spatial deconcentration of economic development, as they are the focal point of the formation of non-metropolitan urban agglomerations and regional centers, playing essential intermediation roles in the context of the state urban network. This reality leads us to reflect on the importance of new studies that analyze the transformations of the urban space that these municipalities are experiencing. The socio-spatial dynamics tend to mirror the processes that already occur in the big cities, with serious consequences, such as the increasing socio-spatial inequality and the loss of the quality of life of their inhabitants.

In this scenario, it is equally important to implement an urban planning agenda that is in harmony with the local reality of each city, but understanding the tendency of a structural process in our society, with a peripheral capitalist base and with great inequalities, which results in some serious faulty adjustment in the urbanization process, reflecting, above all, social injustices. To reverse this situation, medium-sized municipalities have some advantages, as they do not have the urban problems of big cities. Therefore, they are the ones most able to stop these processes, or to minimize them, considering their more limited size and less complex socio-spatial dynamics, something that favors better management and planning for the growth of these cities.

References

ALONSO, Antônio; BANDEIRA, Pedro. Crescimento inter-regional no RS, nos anos 80. In: ALMEIRA, Pedro (Coord.). A economia gaúcha e os Anos 80: uma trajetória regional no contexto da crise brasileira. 67-130. Porto Alegre: FEE, 1990.

ALONSO, Antônio. O cenário regional gaúcho nos anos 90: convergência ou mais desigualdade? Indicadores Econômicos FEE. 97-118. Porto Alegre, v. 31, n. 3. Nov.2003.

ALONSO, Antônio. A emergência de aglomerações não metropolitanas no Rio Grande do Sul. Indicadores Econômicos FEE. 1-20. Porto Alegre, v. 37, n. 3. Nov.2009.

AMORIM FILHO, Oswaldo; SERRA, Rodrigo. Evolução e perspectivas do papel das cidades médias no planejamento urbano e regional. In: ANDRADE, Thompson; SERRA, Rodrigo (org.). Cidades Médias Brasileiras. 1-34. Rio de Janeiro: IPEA, 2001.

ATLAS SOCIOECONÔMICO DO RIO GRANDE DO SUL. Disponível em:
<<http://www.atlassocioeconomico.rs.gov.br/default.asp>>. Acesso em: 17 fev. 2017.

BARCELLOS, Tanya; MAMMARELLA, Rosetta. Processos e territorialidades na urbanização do RS. In: CONCEIÇÃO, Octávio et al. (Org.). A evolução social. 211-240. Porto Alegre: FEE, 2010. (Três décadas de economia gaúcha, 3).

BARCELLOS, Tanya; JARDIM, Maria de Lourdes. Movimentos pendulares no Rio Grande do Sul: um foco sobre as aglomerações urbanas. [2008]. Disponível em:<<http://www.fee.rs.gov.br/tesdes/movimentos-pendulares-no-rio-grande-do-sul-um-foco-sobre-as-aglomeracoes-urbanas/>>. Acesso em: 21 fev. 2017.

BRANCO, Maria. Cidades Médias no Brasil. In: SPOSITO, Maria Encarnação. Cidades médias: espaços em transição. 245 - 364. Expressão Popular: São Paulo, 2007.

BRANDÃO, Antônio; CASTRO, César; NETO, Aristides. Desenvolvimento regional brasileiro: dilemas e perspectivas neste início do século XXI. In: BRANDÃO, Antônio; CASTRO, César; NETO, Aristides (orgs.). Desenvolvimento regional no Brasil: políticas, estratégias e perspectivas. Rio de Janeiro: IPEA, 2017. p.429-470.

CAMPOS, Heleniza; SILVEIRA, Rogério. Urbanização e dinâmica socioespacial nas aglomerações urbanas da Região dos Vales, RS. In: HEIDRICH, Álvaro; et al (org.). Estrutura e dinâmica socioespacial das aglomerações urbanas em tempos de globalização. 7-24. Porto Alegre: Letra1, 2016.

CASTILLO, Ricardo; ELIAS, Denise; PEIXINHO, Dimas; BUHLER, Eve-Anne; PEQUENO, Renato e FREDERICO, Samuel. Regiões do agronegócio, novas relações campo-cidade e reestruturação urbana. In: Revista da Associação Nacional de Pós-graduação e Pesquisa em Geografia (Anpege). p.265-288, V.12, n.18, especial GT Anpege 2016.

CORRÊA, Roberto. Construindo o conceito de cidade média. In: SPOSITO, Maria Encarnação. Cidades médias: espaços em transição. 23-34. São Paulo: Expressão Popular, 2007.

ELIAS, Denise. Globalização e Agricultura. São Paulo: Ed. Hucitec, 1993.

HEIDRICH, Álvaro; TARTARUGA, Iván; FEDOZZI, Luciano; et al. Introdução. In: HEIDRICH, Álvaro; et al (org.). Estrutura e dinâmica socioespacial das aglomerações urbanas em tempos de globalização. 7-24. Porto Alegre: Letra1, 2016.

IBGE. Censo demográfico (2000, 2010). Disponível em:< www.ibge.com.br>. Acesso em: 10 fev. 2018.

IPEA, IBGE e UNICAMP. Caracterização da Rede Urbana Brasileira – Região Sul. Brasília: IPEA, 2000.

LIMA, Jandir; STADUTO, Jefferson; STAMM, Cristiano, et al. A população urbana e a difusão das cidades de porte médio no Brasil. In: Interações, Campo Grande, v.14, n.2, p.251-265. jul.-dez. 2013.

NETO, Aristides; COSTA, Marco; RESENDE, Guilherme; et al. Desenvolvimento Territorial no Brasil: reflexões sobre políticas e instrumentos no período recente e propostas de aperfeiçoamento. In: NETO, Aristides; CASTRO, César; BRANDÃO, Carlos. Desenvolvimento regional no Brasil: políticas, estratégias e perspectivas. 37-64. Rio de Janeiro: Ipea, 2017.

RIBEIRO; Luiz (coord.). Movimento Pendular da população na região Sul: Relatório de atividades 4. [2009]. Disponível em: <http://www.observatoriodasmetrololes.net/obs/images/abook_file/pendular_sul.pdf>. Acesso em: 21 fev. 2017.

SOARES, Paulo. A urbanização no Rio Grande do Sul: as cidades médias e o território. In: PEREIRA, E. M. e DIAS, L. C. (Org.). As cidades e a urbanização no Brasil: passado, presente e futuro. 211-228. Florianópolis: Insular, 2011.

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