ESTADO DO RIO GRANDE DO SUL

Carta de Conjuntura FEE 20 anos

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Porto Alegre and the Metropolitan Area: planning or chaos

The study of Porto Alegre's development necessarily implies not only understanding its place in a changing world, but principally its relationships with the metropolitan formation that surrounds it, as both dimensions are inseparable. The social and economic changes taking place in Porto Alegre are not detached from what happens in the surroundings, but rather they are processes or movements occurring both within the city—Porto Alegre—and within the region—metropolitan area of Porto Alegre (MAPA).

This urban, industrial and services complex has been put through economic, demographic and territorial changes, due to particular needs and to the effects of production restructuring. From an economic point of view, we should highlight the emergence of heavy investments in the petrochemical industry, automotive industry, expansion of oil refining and production of oil derivatives, in addition to the significant expansion of other industrial segments, such as the metal, beverages, and tobacco industries. However, not all changes resulted from expansion. Examples include the inexorable shrinking of income and employment in the leather and footwear industry. From the demographic point of view, the state of Rio Grande do Sul (RS) showed a slower pace of growth (4.98%) between 2000 and 2010, while the MAPA increased by 6.47% over the same period, a high rate for today's standards. But it is important to observe how this rate of 6.47% of growth was distributed across the metropolitan area. While Porto Alegre grew only 3.63%, confirming the trend of recent decades, other metropolitan conurbations reported much higher rates, such as São Leopoldo (10.68%), Cachoeirinha (9.98%) and Gravataí (9, 94%).

With so many structural changes in production, employment, and metropolitan demographics, changes in the pattern of intrametropolitan spatial occupation would be unavoidable as well. In this sense, Porto Alegre has experienced a relative loss of industrial supremacy over RS as significant industrial investments have been made, mainly in the emerging industrial centers of the MAPA (Canoas, Triunfo, Gravataí, Esteio, and Cachoeirinha), in recent decades. Some industrial plants originally based in Porto Alegre had the same fate, and due to the expansion of their scales of production they eventually had to move. This represented a relative drop in Porto Alegre's share in the industrial output of RS (from 10.54% in 1999 to 8.82% in 2008), a trend that has been observed since the 1970s. The same trend was seen in the service sector in Porto Alegre, where the state's supply showed a relative decrease (from 27.46% in 1999 to 24.00% in 2008). This does not mean that the state capital is losing its hegemony either in the state or in metropolitan area. These are merely natural changes that metropolitan areas experience under capitalism. In fact, Porto Alegre will continue to develop its industrial park basically with industries that require little space, that can be vertically integrated in the future, that need small amounts of raw materials and products, and that use more intelligent work. The relative decrease in services is part of the same trend seen in the industry. The expansion of services at higher rates outside the state capital is due to the fact that some tertiary activities, usually the simplest ones, tend to follow the industrial capital and people when they move. The major cause is the rising urban costs for Porto Alegre-based headquarters. In this case, Porto Alegre has consolidated its top position in the urban hierarchy, based much more on the set of services organized on typically capitalist bases, i.e., on activities that operate with high technology, highly skilled workers, such as financial intermediaries, consultancy firms that provide support to the production sector, information technology, communications, large retail market, the hotel industry, among others.

From the metropolitan perspective, all happened rather spontaneously because over the past 30 years, there has been almost no urban planning in Rio Grande do Sul. The very little that had been accomplished in this field by the Executive Group of the Metropolitan Area (GERM), which gave rise to METROPLAN, was abandoned. During all this time, the only regulations in force were the master development plans of the major cities of the MAPA, the Committees for the River Basins and the Regional Development Councils (Coredes), as well as the Association of Municipalities of the Greater Porto Alegre (Granpal) which, although being important institutions, were not enough to tackle the enormous intricacy of the MAPA.

High, disorderly, and geographically concentrated economic and demographic growth generates the chaotic scenario we see today in the MAPA. Increasing urban costs and the decrease in quality of life are two consequences of this evil combination. What is even worse is to pretend that ad-hoc and sectoral interventions will yield beneficial results. The issues involving the MAPA go way beyond the problems related to traffic and transportation. Planning is not a universal remedy, but it can help adroitly steer public policies in this region of RS.

José Antônio Alonso
Economist and former FEE president

Porto Alegre's share in the economy of RS

About 150 years ago, with the end of the heyday of economic activities based on jerked beef in the southern half of Rio Grande do Sul, Porto Alegre started leading the economic production in Rio Grande do Sul. Gradually, the state capital attracted activities that generate more income and employ more skilled labor in the state. Of the state's total GDP of R$ 199.5 billion in 2008, R$ 36.8 billion (18.4%) was generated exclusively in Porto Alegre. Given its coverage and relevance, the region and its surroundings are currently characterized as an important economic center in southern Brazil.

Despite the high significance in terms of production, GDP data from the cities of RS—produced annually by FEE together with IBGE—show that Porto Alegre has had a smaller share in the economy of RS. In other words, although Porto Alegre still has the highest GDP in RS, its share in the total production of goods and services has waned year after year. Between 1999 and 2008, the average nominal growth was 9.0% in Porto Alegre, lower than the 10.4% reported for RS. Thus, Porto Alegre's share in the global economy of RS dropped from 21.1% in 1999 to 18.4% in 2008 (see graph).

Given this scenario, the central question is: why is Porto Alegre losing its share in the state economy? The answer is influenced by some important factors. The first one derives from Porto Alegre's own economic structure, which is largely based on services (86.1%), while industry (14.7%) and, especially, agriculture (0.1%) have a lesser weight on its production. As the average nominal performance of the last 10 years was higher in agriculture (12.1%) than in industrial production (10.0%) and in services (10.0%), those municipalities whose economies rely mainly on the two latter sectors decreased their average share.

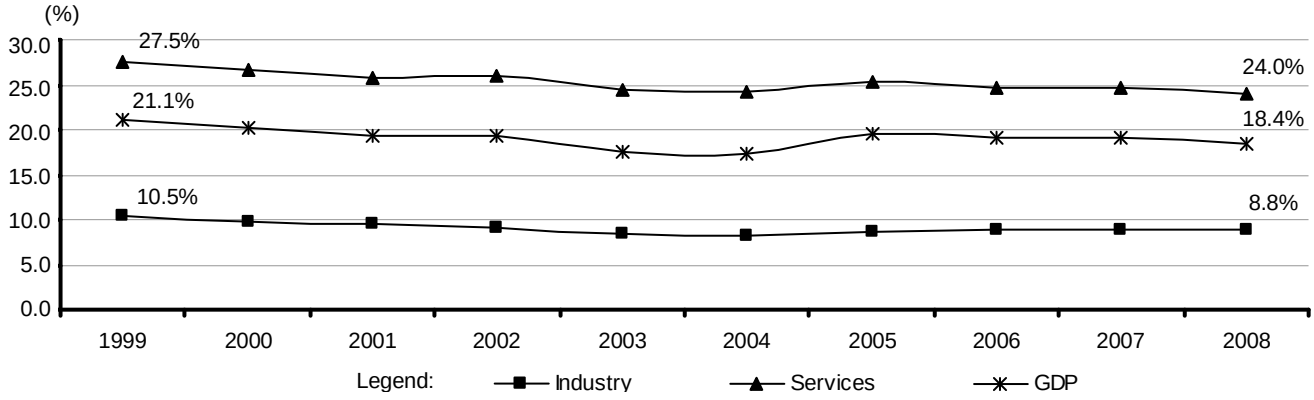
With regard to the importance of the tertiary sector in Porto Alegre, activities related to trade, financial intermediation and public administration, which together account for approximately 56.4% of the total services in the city, had a good performance. In relation to the global performance of RS, services which are mainly concentrated in Porto Alegre are for-profit health care (46.9%), financial intermediation (45.4%) and information services (34.5%). On the other hand, public administration (15.4%), other services (17.0%) and real estate and rentals (18.6%) are more decentralized activities.

In addition to the specificities of the productive structure of Porto Alegre, its economic decentralization can be attributed to the emergence of new growth areas that reach beyond the economic hub between the metropolitan area of Porto Alegre and the Serra Gaúcha (mountain region). More recently, we can highlight investments in the naval hub of Rio Grande and the economic revival of the southern half of RS, which effectively contribute to increased distribution of the wealth generated in RS.

Finally, a third aspect concerning concentration is that it is not limited to RS, but it is rather a widespread and recurring phenomenon in other Brazilian states as well. In 1999, the six Brazilian municipalities with the largest GDP (São Paulo, Rio de Janeiro, Brasília, Curitiba, Belo Horizonte, and Manaus) accounted for 29.4% of total national production. In 2008, these same six largest municipalities reduced their share to 24.8% of the GDP.

In short, loss of economic share is not unique to Porto Alegre, but common to other important urban and economic centers in Brazil.

Share of total GDP of industry and services of Porto Alegre in total GDP of RS—1999-2008



SOURCE OF THE RAW DATA: FEE.

Jéfferson Augusto Colombo
Economist and FEE researcher

Aspects related to poverty and inequality in Porto Alegre

Studies on poverty assume that it is a multifaceted phenomenon, comprising not only material but also non-material needs. In this respect, not only economic, but also social, political, cultural, historical, geographical, and environmental factors are implicated in the situations that define poverty and inequality in a given society.

By looking at deprivation based on lifestyle and consumption patterns of a given society, one can see poverty in relative terms, as it occurs by contrast with an average social standard, which is not achieved by some segments of the population. On the other hand, there is poverty in absolute terms, i.e., lack of minimum requirements for living a decent life (e.g., sufficient supply of potable water, of healthy foods and of housing), leading to serious problems such as endemic hunger, chronic malnutrition, epidemics, mental and psychological disorders, short life expectancy and higher vulnerability to natural disasters and to the effects of climate changes.

When thinking about public policies to address poverty, it is important to take into account these two concepts and the methods for estimation of the affected population that derive from them.

Therefore, poverty lines are often used in order to determine the population groups classified as poor, extremely poor, indigent or socially deprived. These poverty lines are usually built based on minimum living conditions, but take into account the characteristics of each region or country where the data are collected, e.g., prevalent consumer habits, food availability and accessibility, and relative food prices. In a second step, an estimate of resources required to satisfy non-food basic needs can be added. Anyway, this methodology involves arbitrary determination of income brackets to define poverty lines.

In Brazil, the federal government has recently adopted lines of poverty and of extreme poverty, placing the population without income or with a monthly per capita household income of R$ 1.00 to R$ 70.00 in the extreme poverty group and the population with a monthly per capita household income of R$ 71.00 to R$ 140.00 in the poverty group, respectively.

In Rio Grande do Sul, the largest absolute concentration of this population is in the metropolitan area of Porto Alegre, with approximately 124,000 people living in extreme poverty and 189,000 in poverty, corresponding to almost one third of the state's population in these aggregate income groups, with a mainly urban distribution (96%). The state capital, with a 100% urban population, has about 43,000 extremely poor inhabitants (11% of all state's inhabitants in this group), and 55,000 poor (9% of all state's inhabitants in this group).

Some aspects of the living conditions and characteristics of the population of Porto Alegre in both groups should be remarked. Regarding housing and infrastructure, one aspect that draws our attention is the average number of dwellers per household. While the overall average occupancy in the state is three dwellers per household, in Porto Alegre, in the poor and extremely poor groups, more than 30% live in households with six or more dwellers. In turn, with respect to the water supply system, 2% of households do not have access to this type of service, 5% do not have toilets for exclusive use of the household, and of those households which do have toilets, 15% are not connected to a general sewage or rainwater drainage system, or even to a septic tank.

As for age profile, the rate of elderly (persons aged $\geq$ 60 years) among the poor and extremely poor in Porto Alegre is only 6.5%, while the average in RS as a whole is 13.6%. On the other hand, the rate of children aged $\leq$ 5 years in these groups of the population of Porto Alegre is almost 14%.

Illiteracy is also a concern in Porto Alegre. Among the people living for five or more years in poverty and extreme poverty, the rate of illiteracy is 10.9%, while the average of the state is 4.5%.

However, of all collected data, one that stands out refers to the persons in charge of the households, i.e., household heads. In Porto Alegre, when evaluating the rate of household heads according to sex, women account for almost 50% of the total. Among the poor and extremely poor, however, these rates are even higher. Thus, in families without income, 56.2% of household heads are women, while in families with a monthly per capita income of R$ 1.00 to R$ 70.00, the rate is as high as 72.5%, and in families with a monthly per capita income of R$ 71.00 to R$ 140.00, the rate is 61.8%. Poor female household heads are relatively concentrated in the age range of 20–24 years.

Thus, it may be concluded that poverty and extreme poverty in Porto Alegre have an urban characteristic, but also with a prevalence of families headed by young women with small children.

Individuals aged 10 years or older as heads of private households according to income bracket and sex in the city of Porto Alegre—2010

DESCRIP-TION	NO WAGE		R$ 1.00 TO R$ 70.00		R$ 71.00 TO R$ 140.00		R$ 141.00 OR HIGHER		TOTAL	
	Absolute Number	%	Absolute Number	%	Absolute Number	%	Absolute Number	%	Absolute Number	%
Women	7,956	56.17	1,993	72.45	6,740	61.75	236,847	49.27	253,536	49.85
Men	6,208	43.83	758	27.55	4,175	38.25	243,893	50.73	255,034	50.15
TOTAL	14,164	100.00	2,751	100.00	10,915	100.00	480,740	100.00	508,570	100.00

SOURCE OF THE RAW DATA: IBGE/ 2010 Demographic Census.

Clitia Helena Backx Martins
Economist and FEE researcher

The demographic process and land occupation in participatory budgeting areas of Porto Alegre—2000-2010

According to the 2010 Census, the population of the state of Rio Grande do Sul (RS) exceeds 10.6 million (5.61% of the total Brazilian population), still fifth in the national ranking, as in 2000. Between 2000 and 2010, the population of Rio Grande do Sul increased by 5% (506,000 inhabitants), with a geometric growth rate of 0.49% p.a. against 1.21% in the previous census. In 2010, Porto Alegre had a population of 1.4 million inhabitants, 3.58% more than in 2000 (equivalent to 48,700 inhabitants). Just like RS, Porto Alegre also experienced a significant decrease in its growth rate: 0.35% p.a. between 2000 and 2010, compared to 0.92% p.a. between 1991 and 2000.

While Porto Alegre's scenario has changed only slightly in demographic terms, compared to RS during the last decade, the same is not true for the intraurban processes which took place in Porto Alegre. When considering the 17 participatory budgeting areas (PBA), adopted by the government for social and territorial planning, the population is unevenly distributed in the territory. The downtown PBA (*ROP Centro*) has the highest population count, followed by that of the northwestern area. The lowest rate is found in Cristal (1.95%), without considering the PBA of *Ilhas* (islands of the Lake Guaíba), which has the unique status of fully protected conservation unit. In fact, more than 53% of the population is distributed over five regions only, accounting for 21% of the territory, a distribution pattern that has changed little compared with 2000.

In some PBAs, the relative increase in population was significantly high compared to the city's average: 25.93% in the northeastern PBA, 22.51% in the southern PBA, around 17% in the farthest southern PBA and in the PBA of *Lomba do Pinheiro*, and more than 10% in the PBA of *Restinga*. On the other hand, in regions with higher densities, which form already consolidated regions (the downtown and northern PBAs), this variation stayed close to the average. Other areas, some of them highly populated as well, show clear signs of stagnation, with a decrease in their population, e.g., *Cristal*, *Cruzeiro*, *Glória*, *Leste* (East) and *Partenon* (Map 1). In general, the increase in population in Porto Alegre in the 2000-2010 period occurred in a very differentiated way in regional terms, with a trend of urban sprawl towards the city's outskirts.

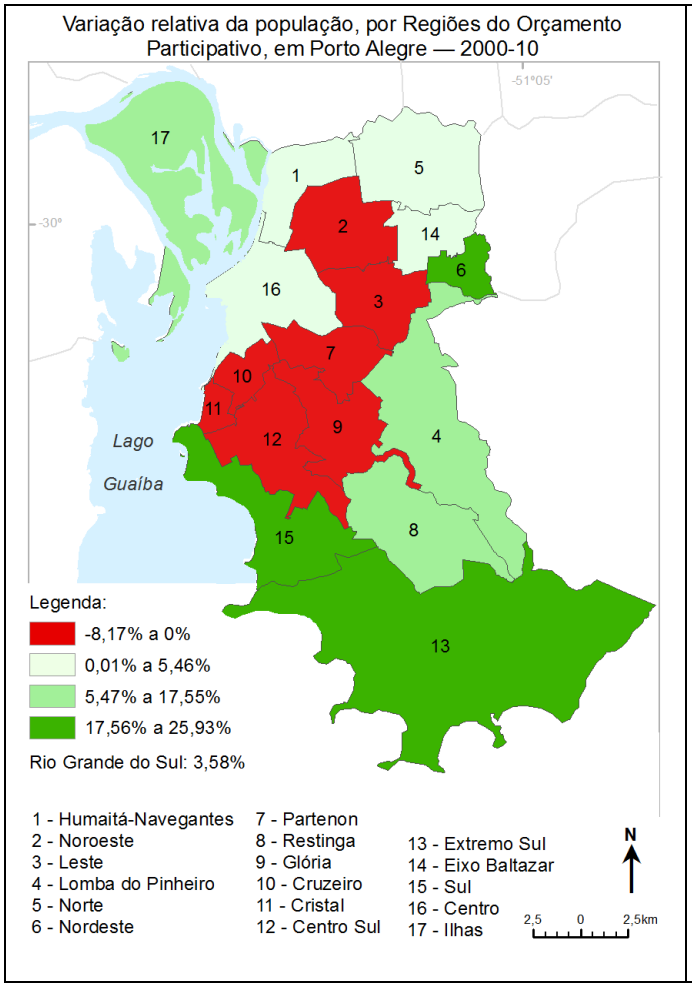
Some features of Porto Alegre in terms of its population are noteworthy. The population remained predominantly female in 2010: in only one PBA, the sex ratio was >1. The rate of the 0–6 year-old population, which was 10.7% in 2000, dropped to 7.89% in 2010. This above-average reduction was seen in all PBAs, but *Cristal* had the highest decrease (-36.39%). However, the city's population of individuals aged 60 years or older increased. In 2000, this population showed an average growth of 11.78%, while in 2010, it rose to 15.01%. The highest increase was observed in the northeastern PBA (79.19%). As a rule, regions with a high concentration of low-end neighborhoods have more children than elderly; nevertheless, the number of elderly in these same regions significantly increased during this decade.

Therefore, the scenario in Porto Alegre is as follows: distribution of the population is concentrated in some areas of the territory, the population is predominantly female, and there is an ongoing aging process due to the effects of low fertility and resulting decrease of the number of children in the younger age group. These issues and dimensions are more subject to the influence of government policies.

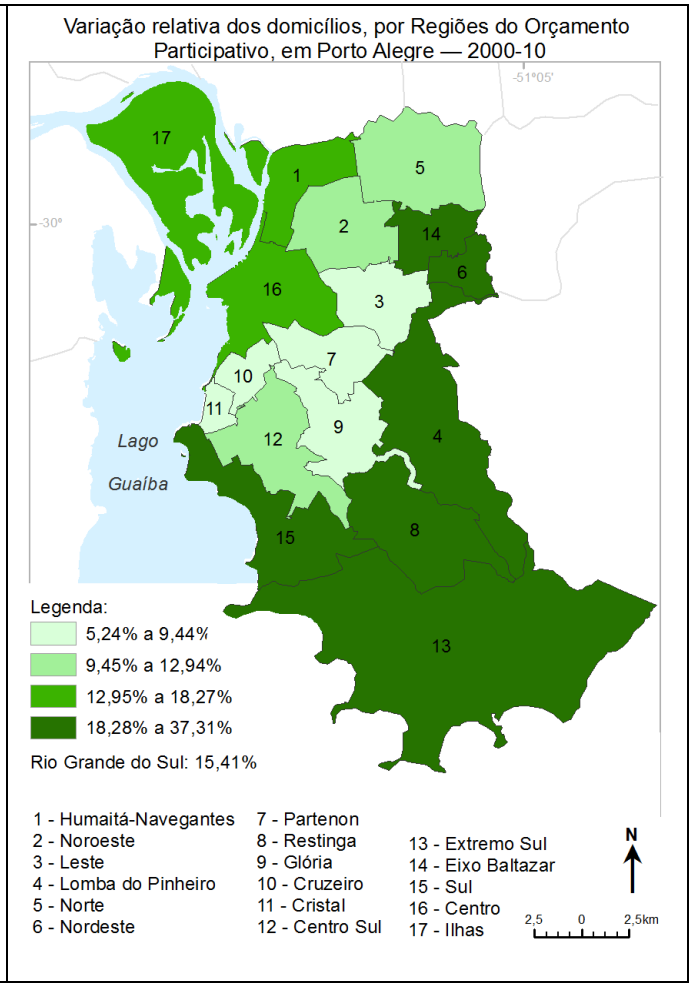
By establishing a relationship between population and territorial dynamics, the census data indicate an uneven movement: while the population grew quite unevenly in the different PBAs in 2000-2010, with a great increase in some PBAs and a decrease in others, households increased at much higher rates and in all regions. However, when analyzing the data on households and comparing them with population data, some interesting phenomena are observed. First, the pattern of household distribution in Porto Alegre follows the same pattern of population distribution, although at higher rates. In 2010, almost one fourth of the households was located in the downtown PBA, the area with the lowest population density per household: 2.2 against 2.8 in the city as a whole, a scenario that is not so different from that of 2000. The number of households in the city increased by almost 68,000 units in the decade (range of 41%). Contrary to what occurred with the population, this increase, albeit uneven, happened all over the city and affected all regions. This somehow shows that the housing market remained active during the decade, but this was more pronounced in some areas, where the relative variation of households was more than twice the city's average (in the southern and northeastern PBAs). In the PBAs of *Lomba do Pinheiro*, *Restinga* and farthest south, the relative increase in households was also significant, exceeding 20%. The PBAs of *Cristal*, *Cruzeiro*, *Glória*, East and *Partenon* were the only regions where the increase in households was less than 10% (Map 2), i.e., more precisely those which showed signs of stagnation in terms of population growth.

From the analysis above, some issues need to be discussed in further detail. The significant loss in population of some regions may be attributed to a number of reasons, from voluntary internal displacement to government intervention through resettlement of people living in illegal areas. Can government interventions, for example, be an explanation for the negative and/or low population growth of the PBAs of *Gloria*, *Cruzeiro*, *Cristal*, and *Partenon* and at the same time show a relative increase in the number of households? This might be a hypothesis. But there are instances in which the expansion of the housing market in areas traditionally looked down on as outskirts, such as the southern and farthest south PBAs, seems to be evident. In such cases, both the population and households increased at very high rates. These regions reported a large increase in the construction of condominiums in gated communities. Therefore, it seems that a new design is taking place in the city's urbanization process towards the so-called *Zona Sul* (southern districts), which until the last decade still displayed a rural-like atmosphere.

Map 1



Map 2



SOURCE OF RAW DATA: IBGE/Demographic Census 2010/Summary. ObservaPOA. Available at: <http://geoobservatorio.palegre.com.br>. FEE.

Selected sociodemographic variables for Participatory Budgeting Areas of Porto Alegre—2000-10

PARTICIPATORY BUDGETING AREAS		POPULATION DENSITY IN 2010 (inhab/km²) (1)	% DISTRIBUTION IN 2010		GEOMETRIC GROWTH RATE IN 2000-10		SEX RATIO IN 2010 (men/ /women)	RELATIVE POPULATION VARIATION IN 2000-10	
			Dwellers	Occupied Private Permanent Households	Population	Households		Up to 6 Years	60 Years and Older
01	Humaitá-Navegantes	2,701.02	3.14	3.06	0.53	1.55	0.88	-18.22	21.84
02	Northwest	6,166.81	9.23	10.12	-0.01	1.08	0.82	-22.60	26.62
03	East	6,885.03	8.14	7.57	-0.36	0.78	0.88	-34.20	36.27
04	Lomba do Pinheiro	1,318.57	4.57	3.89	1.58	2.55	0.95	-21.86	59.21
05	North	3,112.03	6.52	5.90	0.19	1.22	0.91	-24.95	39.35
06	Northeast	4,937.23	2.60	2.12	2.33	3.05	0.94	-14.34	79.19
07	Partenon	8,779.28	8.47	7.71	-0.12	0.91	0.91	-26.73	21.98
08	Restinga	1,647.02	4.31	3.55	1.00	1.97	0.91	-16.59	51.42
09	Glória	2,564.55	3.02	2.73	-0.41	0.72	0.90	-34.05	27.96
10	Cruzeiro	9,510.19	4.68	4.13	-0.61	0.51	0.89	-33.59	22.71
11	Cristal	7,327.76	1.95	2.02	-0.85	0.53	0.84	-36.39	39.50
12	Central South	3,892.54	7.79	7.35	-0.01	1.10	0.86	-26.49	32.79
13	Far South	285.88	2.47	2.18	1.63	2.36	0.95	-19.78	58.38
14	Eixo Baltazar	8,376.61	6.94	6.87	0.52	1.69	0.87	-22.41	60.34
15	South	2,571.78	5.93	5.47	2.05	3.22	0.89	-4.53	65.50
16	Downtown	10,405.10	19.65	24.82	0.37	1.58	0.78	-18.48	21.28
17	Ilhas	123.35	0.59	0.51	0.90	1.60	1.04	-21.34	40.14
	Porto Alegre	2,784.29	100.00	100.00	0.35	1.44	0.87	-23.92	32.05

SOURCE OF THE RAW DATA: IBGE/2010 Demographic Census/Summary. ObservaPOA. Available at: <http://geoobservatorio.palegre.com.br>. FEE.
(1) Measure calculated based on information from ArcGis.

Rosetta Mammarella and Mariana Pessoa
Sociologist and Geographer, and FEE researchers

Formal employment deconcentration tapers off during the decade

During the last decade, the Brazilian labor market recovered its long-lost dynamism. In Rio Grande do Sul (RS), the number of formal jobs grew by 41.5%. In the metropolitan area of Porto Alegre (MAPA), this increase was less intense and expansion reached only 35.4%. Thus, the share of the MAPA in the formal job market of RS went down from 48.7% in 2001 to 46.6% in 2010. In 1985, this share was 55.8%—data that cannot be compared directly, as the boundaries of the MAPA were more restricted back then, but that evidences the trend towards employment deconcentration, a trend which did not show signs of bouncing back, but which subsided in the last decade.

When comparing employment in Porto Alegre with that of the MAPA, the movements observed are similar: the rate for the city dropped from 63.1% in 1985 to 58.1% in 2001, and to 55.6% during the last decade.

Notwithstanding, formal employment in Porto Alegre grew 29.5% in the decade. The sectors with the largest rates were construction (65.7%), trade (51.5%), services (42.4%), and the manufacturing industry (30.5%). In absolute numbers, about 165,000 jobs were created in Porto Alegre, and more than half of those were in the service sector, employing 92,300 workers. Trade, with an increase of almost 40,000 jobs, came in second.

Compared to the MAPA, Porto Alegre lost its share of employment in all segments of activity in the last decade, except for the manufacturing industry. In construction, Porto Alegre's share varied slightly (from 56.3% to 56.0%). In trade, this share fell by almost five percentage points, from 55.9% in 2001 to 51.2% in 2010. There was also a relative reduction in sectors in which Porto Alegre often has the highest shares of metropolitan employment: in public administration, Porto Alegre's share decreased from 82.5% to 79.2%, while in services, it went from 67.4% down to 65.5%.

On the other hand, the manufacturing industry in Porto Alegre created approximately 12,000 jobs, with a modest increase in its share. The increase in one percentage point was not enough to make up for earlier relative decreases. In 1985, Porto Alegre had 22.8% of industrial jobs in the MAPA. In 1990, this share increased to 25.8%, but thereafter it started to decline and reached 18.5% at the beginning of the last decade. From then on, small variations occurred, reaching a share of 19.5% in 2010. Anyway, it should be borne in mind that the manufacturing industry accounted for only 7.1% of all jobs in Porto Alegre last year.

Considering the 12 industrial subsectors, Porto Alegre showed positive employment rates in nine of them in the last decade. The highest absolute increases were observed in food products, beverages and ethyl alcohol (4,213 new jobs), transportation equipment (3,394 jobs), and electrical and communications equipment (1,848 jobs). As far as the major subsectors for the city's employment structure are concerned, the most significant relative gains were observed in the food industry (51.3%) and in the mechanical industry (39.0%). Even with a smaller growth rate than the sector as a whole, chemicals and pharmaceutics, veterinary products, and perfumes showed a significant expansion of 22.2%, while the paper, cardboard, publishing and printing industry grew only 8.2%.

Porto Alegre showed a relative increase in metropolitan industrial employment rates in four of the subsectors with a larger number of workers, namely transportation equipment, food products, electrical equipment, and chemicals. Special attention should be given to the paper and cardboard, publishing and printing sector. Although job creation was modest in this sector and its share in the region's total employment did not grow in the last decade, in 2010 it had the second largest industrial labor force of Porto Alegre (14.1%). In 1985, this subsector represented 32.5% of Porto Alegre's share in the MAPA, while in 2001, it increased to 50%, and remained at 49.0% in 2010.

The data confirm the good employment rates in the different territorial divisions over the last decade. However, they ruin the perception of a deconcentration movement. In the formal labor market, the MAPA decreased its share in RS and Porto Alegre reduced it in the metropolitan MAPA, but the intensity of these relative changes tapered off. In the manufacturing industry, a sector of special analytical relevance, Porto Alegre had a stable share in the MAPA, and the MAPA showed a less sharp decline in its share in RS.

Formal employment per sectors and subsectors of activity in Porto Alegre and their share in the MAPA—2001 and 2010

SECTORS AND SUBSECTORS	2001		2010		VARIATION	
	Absolute	Share in MAPA (%)	Absolute	Share in MAPA (%)	Absolute	%
Manufacturing industry	39,746	18.5	51,858	19.5	12,112	30.5
Foods, beverages and ethyl alcohol	8,213	37.2	12,426	41.7	4,213	51.3
Mechanics	3,792	21.6	5,271	16.4	1,479	39.0
Pharmaceuticals, veterinary products and perfumes	4,753	20.3	5,810	22.2	1,057	22.2
Paper, cardboard, publishing and printing	6,740	50.0	7,295	49.0	555	8.2
Transportation material	1,347	16.8	4,741	29.2	3,394	252.0
Electrical and communications material	2,414	35.1	4,262	38.8	1,848	76.6
Civil construction	21,075	56.3	34,926	56.0	13,851	65.7
Trade	77,625	55.9	117,603	51.2	39,978	51.5
Services	217,857	67.4	310,196	65.5	92,339	42.4
Total	560,680	58.1	726,098	55.6	165,418	29.5

SOURCE: RAIS-MTE.

Sheila S. Wagner Sternberg and Guilherme G. de F. Xavier Sobrinho
Engineer and Sociologist, and FEE researchers

Unemployment in Porto Alegre in the first decade of the 21st century

According to data from the Employment and Unemployment Survey (PED), the overall unemployment rate in Porto Alegre in the first decade of the 21st century shrank to 13.9% in 2001, rose between 2002 and 2005, and fell to 7.7% in 2010. One of the factors that contributed to the reduction in the unemployment rate was the better performance of the Brazilian economy in terms of output growth rates from 2004 to the third quarter of 2008, as well as in 2010.

The rates of both **open** and **disguised** unemployment decreased in Porto Alegre, in the comparison of 2001 with 2010. Nonetheless, the decline in disguised unemployment was sharper, producing a significant change in the number of unemployed workers, i.e., the relative share of workers in disguised unemployment was lower compared to that of workers in open unemployment. This change can be interpreted by taking into account the rate of job creation in Porto Alegre, especially formal employment, which favored the better structure of the labor market. Under these circumstances, a larger number of unemployed workers are likely to meet the requirements for receiving unemployment insurance, and may then live, at least for some time, in open unemployment. In addition, better job prospects have positive effects on individuals living in precarious conditions or in disguised unemployment caused by discouragement, helping them out of these situations in the labor market.

Definitions of unemployment according to the Employment and Unemployment Survey

Open unemployment - people who looked for a job up to 30 days prior to the survey and who did not hold any kind of job in the past seven days.
Disguised unemployment due to scarce job offers - people who looked for a job up to 30 days prior to the survey or for the past 12 months and who held any kind of informal paid job, did any unpaid work in their relatives' businesses, or are working and paid exclusively in cash or with benefits.
Disguised unemployment caused by discouragement - jobless people who did not look for a job in the past 30 days due to labor market discouragement, or due to fortuitous circumstances, but who looked for a job in the past 12 months.

SOURCE: SEADE and DIEESE.

In terms of **sex**, unemployment in Porto Alegre was more favorable to women, with a faster decline in its incidence, contributing to decreasing the relative share of women in the total number of unemployed workers, when 2001 is compared with 2010. According to **age**, the rate of decline in unemployment incidence was higher for older workers (≥ 40 years); adults aged between 25 and 39 showed the lowest decline in unemployment rate, which explains the increase of their rate in the total number of unemployed workers. As for young workers (16-24 years), the rate of decline in unemployment incidence was below the labor market average. In this case, the decrease in their relative share in the total number of unemployed workers is associated with factors related to the supply side of labor, e.g., their weight in Porto Alegre's economically active population (EAP)—corresponding to individuals aged 10 years or older—which shrank in the period.

According to **race/skin color**, unemployment was more favorable to the non-white population, due to the faster decline in the unemployment rate in this group, as well as to their lower relative weight in the total number of unemployed workers. This evidence suggests less disadvantage of the non-white population in their integration into Porto Alegre's labor market in the analyzed period.

With regard to **education**, the analysis reveals that unemployment incidence decreased more significantly for those workers with incomplete elementary school, which seems to be paradoxical when we assume that the labor market is expected to be more selective in terms of formal education requirements. Notwithstanding, there was a reduction of their relative weight in the total number of unemployed workers of Porto Alegre, when comparing 2001 with 2010. For the latter change, the supply side of the labor market also played a role, as there was a decrease in the relative weight of this less educated segment of Porto Alegre's EAP. On the other hand, workers with complete high school education or incomplete university education were the majority in the total number of unemployed workers. This was due both to the slower decline in unemployment incidence in this segment and to the expansion of its share in Porto Alegre's EAP.

Rate of unemployment and distribution of unemployed workers according to type and personal characteristics, in Porto Alegre—2001 and 2010

(%)

DESCRIPTION	RATE OF UNEMPLOYMENT			DISTRIBUTION OF UNEMPLOYED WORKERS	
	2001	2010	Δ%	2001	2010
TOTAL	13.9	7.7	-44.6	100.0	100.0
Type					
Open	9.0	6.3	-30.0	64.4	81.5
Disguised	4.9	1.4	-71.4	35.6	18.5
Sex					
Men	11.7	7.1	-39.3	44.4	47.5
Women	16.3	8.5	-47.9	55.6	52.5
Age					
10 to 15 years	(1)-	(1)-	-	(1)-	(1)-
16 to 24 years	29.0	18.1	-37.6	45.0	39.0
25 to 39 years	11.1	7.7	-30.6	29.5	37.7
40 years and older	7.6	3.9	-48.7	22.5	22.6
Race/Skin color					
White	12.4	7.2	-41.9	75.9	77.4
Non-white	22.4	10.6	-52.7	24.1	22.6
Schooling					
Illiterate	(1)-	(1)-	-	(1)-	(1)-
Incomplete Elementary (2)	18.3	9.3	-49.2	34.0	16.5
Complete Elementary to Incomplete High School	18.9	12.3	-34.9	25.6	25.8
Complete High School to superior Incomplete University	12.7	8.0	-37.0	32.0	44.5
Complete University	4.8	3.8	-20.8	(1)-	12.9

SOURCE: PED-RMPA - FEE, FGTAS, PMPA, SEADE, DIEESE and with support from MTE/FAT.
(1) The sample does not include disaggregated data for this category.
(2) Incomplete elementary education includes individuals who know how to read and write, but who did not attend school.

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Porto Alegre's subway system

It is high time to reassess the benefits of cars and take steps to encourage the use of public means of transportation. There are several potential ways to support this use, and one of them is a subway system. Among the many reasons for implementing a subway system, the most recurring ones refer to the quality of its services, characterized by regularity, reliability, speed, and comfort. Its implementation is often seen as a universal remedy for dealing with the chaos of urban mobility. However, there is a problem intrinsic to subway systems, namely the huge amount of funds involved in their construction, which prompts us to examine the opportunity costs of the project, i.e., the losses associated with not contemplating alternative solutions. The allocation of such a great volume of investments jeopardizes government budgets, with negative impacts on other means of transportation and on urban interventions in general.

The truth is that the costs for implementing a subway system are huge, especially for underground lines. In the case of the São Paulo subway, for instance, the average construction cost per km was $ 130 million, while the costs for Line 3 (the most expensive one) and Line 5 (the cheapest, with most part of the route as elevated tracks) were US$ 159 million per km and US$ 58 million, respectively. In addition, there is often a wide and systematic underestimation of the costs in the initial budgets. Likewise, the time needed for finishing the construction (sometimes 5-8 years) is often underestimated, i.e., one single line can take five to eight years to be built. In the São Paulo subway system, the historical annual construction average (since 1969) is 1.8 km, which means that at this rate it would take 61 years to expand the current system from 74.3 km to 184.2 km, as foreseen. Thus, the idea of building 3.5 km per year in Porto Alegre, with the first line being implemented in just over four years, seems to be over-optimistic.

In fact, the local government made a political choice to construct a subway system. Few details are provided about it, which is understandable, given the lack of construction plans. Line 1 will have 14.88 km, of which 70% will be of underground tracks and 30% at ground level. It will be a light subway system, with light rail vehicles (LRV) traveling on completely dedicated tracks, with an average of 40,000 passengers/hour/direction, compared to the 40,000 to 80,000 passengers in a traditional subway system.

The modern LRV is the successful substitute for the streetcar, establishing itself as a mode of transportation that stands out for its exquisite originality and aesthetics, superior technical characteristics, silent operation, comfort, and unique capacity of integrating into the urban environment. Although it can be used as a fast traditional streetcar in the middle of the automobile traffic, it is precisely because it can run on its own tracks amidst surface traffic, whether totally or partially, or on elevated tracks, that its advantages are more evident. Thus, it requires much less infrastructure investments. However, if the project chosen is one in which the LRV travels underground, costs will be similar to those of traditional subway systems. Even if the tunnels are smaller than usual to suit lighter rail vehicles and if the boarding platforms are shorter to allow receiving shorter trains (with four to six cars in the current proposal), building tunnels is always a costly activity (even in the cut-and-cover method). Similarly, the significant costs with the respective civil works and stations and their equipment cannot be avoided.

The problem of high costs for underground railways is visible in the proposed Line 1, whose cost is estimated at US$ 93 million per km, despite being a light rail system with 4.70 km of surface tracks or elevated tracks. Well, since the tracks of Line 1 will run under long stretches of current bus lanes, it would be perfectly reasonable to consider implementing Line 1 at ground level in these areas, keeping the underground tracks where unavoidable. Thus, there would be a significant reduction in the project's cost, currently estimated at R$ 2.488 billion. Even with 40.2% of resources coming from non-repayable funds (PAC 2), the fact is that the City Hall is heavily committed to investing R$ 600 million in this venture (half of which as a loan), with Rio Grande do Sul's government also taking out a loan to lend R$ 300 million.

Part of these funds, today entirely channeled to Line 1, could meet other needs. They could support the promised modernization of the bus system (BRT) operating in an extended network of exclusive bus lanes and providing high quality services at much lower costs. Also in this sense, it must be remembered that an efficient subway system, capable of ensuring functionality and consistency in the exploration of services (in terms of business and area coverage), takes for granted the implementation of the planned core network, which in the case of Porto Alegre includes two more lines, which together would form a beltway around the city's central area. However, given the current price of building Line 1 of Porto Alegre's subway system, this proposition seems to be relegated to a distant future.

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