

## Socioeconomic Development of the Immediate Region of Guarapuava from 2015 to 2020



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#### **ABSTRACT**

The delimitation of regions allows studies to be carried out, enabling a better characterization of the municipalities that comprise it, helping to identify inequalities and potentialities, facilitating the development of public policies to improve the economic and social situation of the region. Thus, the present study aimed to analyze the socioeconomic performance of the municipalities in the Immediate Region of Guarapuava (RIG) in Paraná, based on the indicators of the IPARDES Index of Municipal Development (IPDM) in the period from 2015 to 2020. To characterize the productive structure and the socioeconomic profile of the municipalities of the RIG in this period. An

exploratory and descriptive research with a qualitative approach was carried out, supported by bibliographical research for literature review and secondary data from IPARDES, IBGE and RAIS for data collection, tabulation, and analysis, using descriptive statistics in the presentation of these. The results showed that the region is composed of small municipalities and most of them have agriculture as the most representative activity in the GDP. During the study period, the municipalities showed advances in development in health and education, but not in terms of employment and income and, therefore, this was the index that weighed most negatively on the dynamism of the development of municipalities in the region, which imposes the observation that the region has low performance in terms of employment and income and needs public policies aimed at meeting this purpose.

**Keywords:** Region, Productive structure, Development, Employment, Income.

#### 1 INTRODUCTION

The theoretical debate on the issues surrounding the paradigms of growth and development of the regions has been expanding significantly in recent decades. The increased interest in the analysis by the regional/local, can be highlighted as one of the factors, the globalization movement that ultimately creates, recreates and strengthens regionalization.

Considering that the process of economic development does not occur homogeneously in all regions, due to the existing disparities, the regional division is an instrument to subsidize the planning of public policies aimed at the management of the territory, the productive structure and cultural identity.

Given this context, the focus of this analysis was the Immediate Region of Guarapuava, (RIG) in the State of Paraná, which according to IPARDES (2022) is composed of 12 municipalities, most of them small, which have in total an estimated population of 353,662 inhabitants, with the objective of analyzing the productive structure and socioeconomic performance of the municipalities of the Immediate Region of Guarapuava, in the period from 2015 to 2020. From the analysis of the indicators



of the IPARDES Municipal Development Index, (IPDM) of GDP, GDP per capita and data on the stock of formal jobs and average remuneration of the Annual Social Information Ratio (RAIS) identify which indicator presented the worst performance for the development of the region.

The study is justified due to the importance of knowing the socioeconomic profile of the municipalities and the difficulties of the region, enabling the elaboration of public policies aimed at promoting local development, according to the specificities found in each location, because the regions and municipalities have their own characteristics and have different levels of development. Thus, the regional economic dynamics becomes the object of quite complex study, given the existing interrelations within and between different localities and their importance for the cohesion of the national economy.

This article is divided into five parts, in addition to this introduction, the second part presents the theoretical framework, focusing on Regional Theories of Development. In the third part the methodological procedures. In the fourth, the results and discussions in which the characterization of the Immediate Region of Guarapuava will be presented. The analysis of the evolution of the IPDM of the Municipalities of the Region in the period from 2015 to 2020. IPDM performance by municipality. Challenges and perspectives of development policies for the Immediate Region of Guarapuava. And finally the Final Considerations.

#### 2 THEORETICAL FRAMEWORK

#### 2.1 REGIONAL ECONOMY

The regional economy, as highlighted by Nasser (2000) developed more focused on the interrelation of agents and factors within a given region, previously cut out, with the objective of evaluating all the characteristics of that region.

Another issue that involves the studies of the regional economy is the inequality in regional development, which does not occur only between regions, but is also noticeable at the municipal level, and there may be a large difference between municipalities that are part of the same region.

With this perspective Mendes et al (2020) argue that inequalities are not limited only to regions, but also occur between neighboring municipalities and the same region, and economic activities, the management of public policies and other political, social, economic and environmental characteristics can interfere in the development process, resulting in different levels of advancement for each particular region. Thus, the development in municipalities, states or regions, can be influenced differently by several aspects.

Accompanying the structural transformations of the economy, theories of regional development have changed considerably over time. Thus, given the existence of inequalities, it is important to study regional development that focuses on the development of a certain group, which is not only linked by



economic, productive, and geographical factors, but also by political and cultural factors. Therefore, the indicators used should not only study the level of accumulation of material goods, because the well-being of individuals also depends on access to other factors that allow both collective and individual well-being (VIEIRA; SAINTS, 2012).

#### 2.2 THEORY OF CENTRAL PLACES

Knowing that the development process is quite irregular and once started at certain points has the characteristic of strengthening more dynamic areas and that have greater growth potential.

Thus, to substantiate the theme of this study, among the authors who deal with the theory of Location will be highlighted Christaller with the Theory of Central Places, which started from the observation that growth is not distributed homogeneously in space, but focuses on economically dynamic points, that is, that present locational advantages. The author develops in his work the idea that cities are organized from a central region, but being at the same time part of other central regions of different intensities and hierarchies.

According to Nascimento, et. al (2009) the Theory of Central Places developed by Walter Christaller in the year 1933, proposes that economic places are part of an interdependent network that tends to centrality, providing the existence of a logical hierarchy between places. In this way the central economic places are seen as being suppliers of goods and services to other localities as well as to themselves.

For Vasconcelos and Antonello (2019) such a theory starts from the hypothesis that cities have a natural logic of hierarchization, which tends to form a centralization of economic activities in certain spaces. In this sense, the central places are the cities, usually the largest ones, responsible for providing goods and services, both for themselves and for the surrounding areas of less centrality.

As for the rural space, they emphasize that for Christaller's theory this space would be the inexistence of a population concentration, in addition to a low economic activity, in which it does not generate an attraction for the population, not forming hierarchical networks between this space. Thus, the rural space is defined as a place sparsely inhabited and with activities little dynamic, dispersed and with low polarization. Therefore Vasconcelos and Antonello , (2019), the rural-urban relationship passes and have a clearly unequal analysis, with the rural environment being only a reflection of the decisions of the city.

#### 2.3 ENDOGENOUS DEVELOPMENTAL THEORY

Barquero (2002) emphasizes that endogenous development is guided by the promotion of a development dynamic that starts from the potentialities of each community to promote collective benefit and local development. Articulating strategies between the different socioeconomic actors,



such as the creation of an efficient and diversified productive structure, socially and environmentally sustainable, subject to local priorities and strategic interests in connection with the objectives of other spheres of development such as national, regional and even global. Thus, the articulation of interests is sought, through local or regional organizations and networks, to maximize local development capacities.

For Piacenti (2009), not only economic factors are enough for the development of a locality, but it is also necessary to associate them with factors that are endogenous, such as human, social, institutional, physical and natural capital. Therefore, Endogenous development is directly related to the region's capacity to organize and transform economic growth into development, through the institutional base they have, and also the agents involved who are directed by a regional political project that is sustained and strengthened by the existing social fabric.

In this scenario, it is possible to perceive the importance of public policies that aim to reduce inequality within the regional context, taking into account the existence of the endogenous factors available and their ability to relate to economic resources, seeking to improve this interaction to enable progress in development.

The position of the theory of endogenous development regarding economic activities, whether they are in the agricultural, industrial or service sector, argues that there is no single path to development and, as a consequence, the process of local development can be articulated around any type of activity, provided that its productive units are competitive (BARQUERO, 2002).

#### 2.4 REGION AND ITS DIVISIONS

According to Corrêa (1995), the term region is used to designate a certain geographical territory, which by some determined factors differs from another territory. This differentiation can include economic, social and political aspects, as well as taking into account natural factors. Therefore, Region can be described as being a group of smaller units that have many points in common with each other, but present many points of difference with respect to other sets of the same type.

It should be noted that, as Santos (2002) argues, there is a need for constant updating of the concept of region, according to the historical moment. Based on the above, the Regional Division of Brazil carried out by the IBGE had motivations that led to the elaboration of the three models of division, produced during the twentieth century: Physiographic Zones, of the 1940s, and their revisions; Homogeneous Microregions, 1968; and Geographic Mesoregions and Microregions, 1989 (IBGE, 2017).

In 2017 a new regional division into Immediate and Intermediate Geographical Regions was carried out that aimed to cover the transformations related to the urban network and its hierarchy, capable of distinguishing regional spaces at appropriate scales (IBGE, 2017).



The Immediate Geographic Regions have as their main element of reference the urban network. These regions are structured from nearby urban centers to meet the immediate needs of the populations, such as: purchases of durable and non-durable consumer goods; job search; demand for health and education services; and provision of public services, such as service stations of the National Institute of Social Security (INSS), the Ministry of Labor and judicial services, among others.

The Intermediate Geographic Regions, on the other hand, are an intermediate scale that exists between the immediate geographical Regions and the Federation Units. When elaborating the intermediate geographic regions, we sought to identify urban centers with greater hierarchy for a given set of immediate geographic regions that make up the respective intermediate geographic region (IBGE, 2017).

#### 2.4.1 Immediate Geographic Regions of Paraná

According to the new regional division of Brazil, prepared by IBGE (2017), Brazil is now composed of 133 Intermediate Geographic Regions and 510 Immediate Geographic Regions. The defined regions are always constrained by the boundaries of the federation unit of which they are a part. The nomenclature of the immediate regions had been defined based on the pole that had the highest urban hierarchy, taking into account its importance for the other municipalities in the region.

According to IPARDES (2019) the State of Paraná was divided into six intermediate geographic regions, namely: Curitiba, Guarapuava, Cascavel, Maringá, Londrina and Ponta Grossa and 29 Immediate Regions.

This study will focus on the Immediate Geographic region of Guarapuava which is part of the Intermediate geographic region of the same name. According to IPARDES (2019), the Intermediate Geographic Region of Guarapuava contains nineteen municipalities and is subdivided into two other immediate regions: the Immediate Region of Guarapuava and the Immediate Geographic Region of Pitanga. The Immediate Geographic Region of Guarapuava (RIG) is formed by twelve municipalities, namely: Campina do Simão, Candói, Cantagalo, Foz do Jordão, Goioxim, Guamiranga, Guarapuava, Inácio Martins, Pinhão, Prudentópolis, Reserva do Iguaçu and Turvo.

Thus, this study sought to analyze the productive structure and socioeconomic performance of the municipalities that make up the regional cut of the Immediate Region of Guarapuava.

#### 3 METHODOLOGY

This research is exploratory and descriptive in terms of bibliographic and documentary research. The theoretical foundation was based on the bibliographic research carried out from a review of the literature on the Theories of Regional Development and the concept of regions and their divisions.



As a delimitation of the research field, the Immediate Region of Guarapuava was used, formed by 12 municipalities, namely: Campina do Simão, Candói, Cantagalo, Foz do Jordão, Goioxim, Guamiranga, Guarapuava, Inácio Martins, Pinhão, Prudentópolis, Reserva do Iguaçu and Turvo (IPARDES, 2019)

To carry out the analyses and achieve the objectives on the productive structure and socioeconomic performance of the municipalities of the Immediate Region of Guarapuava in the period from 2015 to 2020, the data from the IPARDES Municipal Performance Index (IPDM) collected from the database of the Paranaense Institute for Economic and Social Development (IPARDES) were used as the main variables.

To complement the analysis on employment and income in the formal labor market of the Region, data were extracted from the Annual Relation of Socioeconomic Information (RAIS) of the Ministry of Labor and Employment for the period, which presented the annual data of the stock of formal jobs and the average remuneration per municipality.

In addition to this index, other variables will be used with data from the Brazilian Institute of Geography and Statistics (IBGE), such as the Gross Domestic Product (GDP) and GDP *per capita*, of Paraná and the municipalities of the Region, as well as the estimated population that subsidized information on the size of the municipalities.

For the characterization of the socioeconomic profile of the region and the analysis of the productive structure, data from the Gross Added Value (GVA) of the Agriculture, Industry and Services sectors were used in the composition of the total GDP, using IBGE data.

The IPDM calculates the index considering in the same weighting the areas of: a) income, employment and agricultural production; (b) education; and c) health. The evaluation of development takes place by reading the result of the index. So the closer to 1, the better the performance level of the municipality. For the classification of municipalities, the following parameters are used: Low from 0.00 to 0.40, Medium Low 0.41 to 0.60 and Medium 0.61 to 0.80 and High 0.81 to 1.00 (IPARDES, 2019).

Each of the three development areas addressed by the index has a one-third share of the final index. For the composition of the indicators of each development area, a series of variables at the municipal level are used, elaborated by IPARDES (IPARDES, 2019).

For the presentation and analysis of data on the municipalities of the Immediate Region of Guarapuava, descriptive statistics will be used.



#### **4 RESULTS AND DISCUSSIONS**

#### 4.1 CHARACTERIZATION OF THE IMMEDIATE REGION OF GUARAPUAVA

As previously mentioned, the Immediate Region of Guarapuava (RIG) is formed by 12 municipalities, equivalent according to the IBGE (2017) to a territorial area of 13,851.158 km2, occupying 7.0% of the territory of Paraná. Table 01 contains some data selected to compose the socioeconomic profile of the municipalities.

Based on the data presented in Table 01, it can be seen that the region is formed mostly by small municipalities, with an estimated population for the year 2020 of 353,662 inhabitants, representing 3.07% of the State.

Table 01 - Socioeconomic profile of the municipalities of the RGI of Guarapuava- GDP, GDP per capita and population

Municipality	Estimated population IBGE -2020	GDP current prices (R\$1.000,00) IBGE- 2020	GDP per capita (R\$1.00) 2020	
Campina do Simão				
	3.859	130.686,02	33.865,26	
Candói	16.053	725.161,85	45.172,98	
Cantagalo	13.329	305.751,75	22.938,84	
Foz do Jordão	4.556	171.346,57	37.608,99	
Goioxim	7.053	282.538,35	40.059,32	
Guamiranga	8.811	268.373,63	30.458,93	
Guarapuava	182.644	7.515.223,42	41.146,84	
Inácio Martins	11.121	235.035,74	21.134,41	
Pinhão	32.559	1.563.227,06	48.012,13	
Prudentópolis	52.513	1.435.541,13	27.336,87	
Reserva do Iguaçu	8.069	238.381,58	29.542,89	
Turvo	13.095	543.544,82	41.507,81	
Region Average	29.471,83	1.117.900,99	34.898,77	
<b>Total Region</b>	353.662,00	13.414.811,91	31.516.00	
Parana	11.516.840,00	487.930.593,78	42.366,71	
% relation to the State	3,07%	2,75%	74,39%	

Source: Prepared by the author based on data obtained from IBGE (2020).

It was found that 75% of the municipalities of the RIG had a population of less than 20,000 inhabitants. Only 16% a population between 20,000 and 55,000 and only one municipality, that of Guarapuava, with more than 180,000 inhabitants

As for the share of RIG's GDP in the state's GDP, it corresponded to 2.75% in 2020. The municipalities of Guarapuava, Prudentópolis and Pinhão had GDP higher than the average of the region, while 75% of the municipalities were below the average. It is worth mentioning that the sum of the GDP of the 11 municipalities that make up the Region is lower than the GDP of Guarapuava, proving in this aspect its degree of hierarchy among the municipalities, configuring itself as a hub municipality.



According to Christaller's theory of central places, this situation provides the interdependence of municipalities that tends to centrality, providing the existence of a logical hierarchy between places. Thus, the central places are the cities, usually the largest ones, responsible for the supply of goods and services.

Guarapuava in this sense, fits as a hub municipality for having a diversified economy, stands out in the agricultural segment, logging, grain production and agribusiness. The municipality has a population estimated in 2020 by the IBGE according to IPARDES (2019a) of 182,644, in addition to offering health services of medium and high complexity is a pole in education, because there is a concentration of many universities and the generation of the highest rate of employment and income among the municipalities of the region.

In relation to *the GDP per* capita of the RIG, it was observed that it is 26% below the state average, but two municipalities stand out Pinhão and Candói with GDP per *capita* above the state average. In relation to the average of the region, 41.6% of the municipalities were above the average of the GDP per capita of the region and 41.6% below the average. The data showed that RIG is characterized both in relation to the population and in the GDP and GDP per *capita* a little expressive participation in the state of Paraná.

For a better characterization of the immediate region of Guarapuava and the municipalities that compose it, it was important to study its productive structure, presented in Table 02.

Table 02 - Share of the gross added value of each sector in the GDP of the municipalities of the RGI of Guarapuava - 2020

Municipalities	Agricultural	Services	Industry
Campina do Simão	61,8%	15,4%	3,2%
Candói	50,6%	25,8%	6,5%
Cantagalo	41,4%	27,8%	5,9%
Foz do Jordão	48,0%	18,1%	14,2%
Goioxim	60,3%	19,7%	3,3%
Guamiranga	61,8%	15,1%	4,4%
Guarapuava	9,4%	46,4%	20,4%
Inácio Martins	39,9%	21,4%	9,9%
Pinhão	20,9%	14,5%	51,6%
Prudentópolis	39,1%	30,1%	9,0%
Reserva do Iguaçu	55,4%	15,0%	8,0%
Turvo	26,5%	20,5%	32,9%

Source: IBGE (2020)

With the data in Table 02 it was possible to identify which sectors have greater relevance to their economy. Thus, it was verified the participation of the sectors with the Gross Added Value (GVA) in the composition of the total GDP, this information allows a better identification of the configuration of the productive structure of the municipalities, ascertaining which sectors added more value to the composition of the GDP of the Municipalities in the year 2020.



Based on these sectorial data from IBGE (2020), it was possible to observe that most municipalities in the region have a greater participation of agricultural activity in their productive structure, some municipalities such as Campina do Simão and Guamiranga even have 61.8% of participation of this sector in GDP. Guarapuava, Pinhão and Turvo, were the municipalities with the lowest participation of the agricultural sector, where the participation in the industrial and services sector had a greater weight.

Therefore, when analyzing the productive structure of most of the municipalities in the region, it was found that the agricultural sector had the largest share in GDP, following the trend of previous years, being the most important economic base of these municipalities, with the exception of Guarapuava, Pinhão and Turvo. (IBGE, 2020)

### 4.2 ANALYSIS OF THE EVOLUTION OF THE IPDM OF THE MUNICIPALITIES OF THE RGI OF GUARAPUAVA

The data in Table 03 allowed the analysis of the evolution and performance of the general IPDM of the municipalities of the RIG.

Table 03 - IPDM of the Municipalities of the RGI of Guarapuava – 2010/2020

	YEARS					
MUNICIPALITIES	2015	2016	2017	2018	2019	2020
Campina do Simão	0,599	0,598	0,701	0,685	0,695	0,675
Candói	0,561	0,579	0,637	0,675	0,713	0,689
Cantagalo	0,557	0,556	0,601	0,624	0,673	0,683
Foz do Jordão	0,524	0,552	0,554	0,582	0,615	0,650
Goioxim	0,516	0,516	0,573	0,628	0,710	0,705
Guamiranga	0,603	0,617	0,634	0,642	0,687	0,679
Guarapuava	0,696	0,711	0,716	0,737	0,783	0,771
Inácio Martins	0,520	0,523	0,564	0,554	0,651	0,644
Pinhão	0,576	0,602	0,643	0,645	0,687	0,677
Prudentópolis	0,653	0,664	0,686	0,693	0,722	0,733
Reserva do Iguaçu	0,555	0,556	0,576	0,603	0,644	0,678
Turvo	0,605	0,602	0,672	0,629	0,746	0,738
Average	0,580	0,590	0,630	0,641	0,694	0,693

Source: Prepared by the author based on data from IPARDES (2022)

Based on the values presented in Table 03, it is possible to notice that Guarapuava, presented the best performance in the general IPDM Index for all years of the series from 2015 to 2020 in relation to the other municipalities of its region, presenting an evolution over the period, being classified as a municipality with medium performance.

In relation to the other municipalities in the region, it is noticed that they also had an evolution in the performance of the index, because the average IPDM of the region for 2015 was 0.580, being classified as low average, and in 2020 the average IPDM was 0.693, which is considered as medium



performance, it is perceived that there was a growth in the IPDM around 36% in the performance of the municipalities of the Region during the period analyzed.

#### 4.3 PERFORMANCE OF IPDM DIMENSIONS BY MUNICIPALITY

In addition to the study of the General IPDM Index, it is important to analyze the main factors that contributed to the performance of the index during the period studied.

Table 04 shows the indices of the Education dimension for each of the Municipalities of the Region in the years 2015 to 2020.

Table 04 - IPDM of performance in the education dimension of the Municipalities of the RIG - 2010 to 2020

	YEARS						
MUNICIPALITIES	2015	2016	2017	2018	2019	2020	
Campina do Simão	0,580	0,605	0,794	0,810	0,837	0,833	
Candói	0,564	0,580	0,642	0,691	0,799	0,809	
Cantagalo	0,618	0,625	0,673	0,715	0,773	0,839	
Foz do Jordão	0,514	0,491	0,537	0,546	0,683	0,787	
Goioxim	0,584	0,594	0,567	0,557	0,783	0,755	
Guamiranga	0,723	0,756	0,765	0,808	0,874	0,880	
Guarapuava	0,705	0,729	0,746	0,780	0,883	0,878	
Inácio Martins	0,434	0,452	0,509	0,535	0,690	0,709	
Pinhão	0,533	0,588	0,673	0,672	0,768	0,774	
Prudentópolis	0,775	0,822	0,840	0,838	0,892	0,906	
Reserva do Iguaçu	0,545	0,559	0,590	0,567	0,719	0,748	
Turvo	0,653	0,696	0,716	0,718	0,847	0,844	
Average	0,602	0,625	0,671	0,686	0,796	0,813	

Source: Prepared by the author based on data from the IPARDES (2022)

Based on the data in table 04, it is perceived that there was an important evolution in this indicator in the period, in 2020 the average of the municipalities of the Region presented a performance of 0.813 in the dimension of Education, being, therefore, considered according to the parameters of the index, high performance in the area of Education, in addition, all other municipalities presented an index higher than 0.70, being classified as medium performance.

The municipalities of Prudentópolis, Guamiranga, Guarapuava and Turvo stand out, which presented respectively the best results and were classified with high development in the dimension of education. Presenting the lowest index 0.709 the municipality of Inácio Martins.

Next in table 05, it is possible to check the data of the IPDM index regarding the development of the Municipalities in the dimension of Health.

As in Education, the Health dimension presented a positive evolution in the period in all municipalities, going from 0.742 to 0.886, presenting an average in the period of 0.812, remaining with medium performance,



With emphasis on the Municipalities of Goioxim and Turvo with 0.918 and 0.907 respectively reaching the high performance classification. It is worth mentioning that in 2020 all municipalities in the region reached rates above 0.81, classifying themselves as high performance.

This result may be due to the greater participation of public investments in these areas and, therefore, the Education and Health indexes were the ones that had the greatest weight in the evolution of the IPDM of the municipalities of the Region.

Table 05- IPDM of performance in the Health dimension of the Municipalities of the RIG - 2015 to 2020

•	YEARS					
MUNICIPALITIES	2015	2016	2017	2018	2019	2020
Campina do Simão	0,849	0,845	0,892	0,869	0,906	0,857
Candói	0,664	0,702	0,801	0,851	0,863	0,869
Cantagalo	0,686	0,674	0,706	0,790	0,865	0,836
Foz do Jordão	0,707	0,806	0,785	0,789	0,796	0,864
Goioxim	0,612	0,624	0,784	0,967	0,960	0,918
Guamiranga	0,771	0,807	0,806	0,796	0,836	0,856
Guarapuava	0,789	0,798	0,799	0,826	0,841	0,846
Inácio Martins	0,773	0,787	0,801	0,762	0,864	0,859
Pinhão	0,780	0,798	0,827	0,841	0,842	0,833
Prudentópolis	0,775	0,772	0,804	0,821	0,846	0,867
Reserva do Iguaçu	0,766	0,765	0,757	0,821	0,815	0,876
Turvo	0,735	0,714	0,804	0,823	0,926	0,907
Average	0,742	0,758	0,797	0,830	0,863	0,886

Source: Prepared by the author based on data from Ipardes (2022)

In this context, it is perceived that the results found for the RGI of Guarapuava corroborate the ideas that greater economic development is related to an improvement in education and health indicators. Which were the indicators responsible for the positive evolution of the general IPDM of the Region. This development, however, is not reflected in the indicator of development in employment and income and agricultural production. Thomas et al. (2002)

Table 06 below shows the data of the Income and Employment dimension of the Index, for each of the RGI Municipalities for the period from 2010 to 2020.

The data showed that the highest value in all years was for the municipality of Guarapuava, which is the hub municipality of the region, therefore, it was the municipality that presented the best performance in terms of income and employment, among the others. In the case of Guarapuava, there was an advance in the index from 2015 to 2019 going from the low average classification to the average, however for the year 2020 it was again classified as low medium in the dimension of income and employment.



Table 06 - IPDM in the income and employment dimension, of the municipalities of the RGI of Guarapuava- 2010/2020

	YEARS						
MUNICIPALITIES	2015	2016	2017	2018	2019	2020	
Campina do Simão	0,368	0,342	0,417	0,375	0,341	0,334	
Candói	0,456	0,455	0,467	0,483	0,478	0,390	
Cantagalo	0,367	0,370	0,425	0,366	0,380	0,374	
Foz do Jordão	0,350	0,359	0,341	0,413	0,366	0,298	
Goioxim	0,352	0,329	0,367	0,361	0,387	0,443	
Guamiranga	0,315	0,289	0,330	0,321	0,353	0,301	
Guarapuava	0,595	0,606	0,602	0,607	0,623	0,589	
Inácio Martins	0,351	0,329	0,382	0,364	0,398	0,365	
Pinhão	0,414	0,420	0,430	0,424	0,451	0,425	
Prudentópolis	0,409	0,397	0,415	0,419	0,427	0,425	
Reserva do Iguaçu	0,354	0,343	0,383	0,422	0,398	0,409	
Turvo	0,429	0,397	0,496	0,347	0,466	0,462	
Average	0,397	0,386	0,421	0,408	0,422	0,401	

Source: Prepared by the author based on data from the IPARDES (2022)

When comparing the performance during the period from 2015 to 2020, it is noticed that a good part of the municipalities presented little progress, and some even regressed, presenting a performance in 2020 lower than they had in 2015, which may be related to the effects of COVID 19, and its impacts on the labor market.

To complement the analysis of the performance of the IPDM in the employment and income dimension of the RIG, the data in Table 07 showed the performance of the stock of formal jobs in the Region in the period. It is noticed that with the exception of the municipalities of Foz do Jordão, Inácio Martins, Prudentópolis and Guarapuava that presented an important growth, the other municipalities showed a trend of low dynamism and even negative in the generation of employment, with emphasis on the municipality of Campina do Simão with a negative variation of 39.7%.

It is worth mentioning that Guarapuava stands out as the municipality with the largest stock of formal jobs, representing 67.5% of the jobs in the region.

Table 07 RIG Formal Employment Stocks for the Period 2015 to 2020

Municipalities	2015	2016	2017	2018	2019	2020	Vaariação%
Campina do Simão	559	476	552	520	363	337	-39,7
Candói	2.188	2.149	2.187	2.350	2.320	2.001	-9
Cantagalo	1.349	1.409	1.349	1.262	1.330	1.320	-2,1
Foz do Jordão	673	576	607	833	888	766	13,8
Goioxim	573	541	553	550	590	582	1,5
Guamiranga	765	736	727	727	764	739	-3,3
Guarapuava	42.295	41.942	42.125	43.069	42.818	44.503	5,2
Inácio Martins	1.273	1.185	1.306	1.337	1.391	1.441	13,1
Pinhão	3.715	3.576	3.868	3.900	3.855	3.796	2,1
Prudentópolis	6.593	6595	6.443	6.911	7.036	7.226	9,6
Reserva do Iguaçu	811	696	754	776	830	779	-3,9
Turvo	2.360	2.344	2.528	1.819	2.220	2.352	-0,3



Paraná 3.113.204 3.013.105 3.028.192 3.070.407 3.116.340 3.086.129 0.14

Source: Prepared by the author based on data from MTE/RAIS, 2021

In relation to Paraná, the data showed that the state presented the same trend of the RIG of little dynamism in the flow of employment stocks, maintaining an average variation in the growth period of 0.14%. Another fact that draws attention is the participation of RIG's stock of jobs in Paraná, which represented only 2%, indicating that it is a Region with low representation in the state's economy.

Table 08 shows the average remuneration of RIG and Paraná in the period. The analysis of the data can be seen that the average remuneration of the region in this period was R \$ 2,397.44 if compared to the average of Paraná which was R \$ 3,547.97, it was found that the average remuneration of the RIG is 67.7% below the average remuneration of Paraná.

Table 08 Average Remuneration in R\$ of RIG and Paraná from 2015 to 2020

Municipalities	2015	2016	2017	2018	1019	2020
Campina do Simão	2.057,20	2.062,85	2.291,44	2.301,11	2.203,26	2.139,00
Candói	2.713,07	2,720,82	2.813,64	2.863,37	2.820,71	2.428,36
Cantagalo	2.215,19	2.231,84	2.619,46	2.437,62	2.400,91	2.319,17
Foz do Jordão	2.134,90	2.243,22	2.193,43	2.066,01	2.150,50	2.314,51
Goioxim	2.220,51	2.147,96	2.296,45	2.365,72	2.387,74	2.746,01
Guamiranga	2.036,58	1.889,80	1.993,76	2.003,29	2.154,44	2.111,58
Guarapuava	3.161,63	3.267,53	3.346,06	3.326,70	3.362,04	3.149,32
Inácio Martins	2.058,07	1.995,18	2.161,01	2.128,66	2.218,64	2.101,78
Pinhão	2.418,24	2.505,83	2.549,34	2.556,69	2.627,26	2.561,26
Prudentópolis	2.311,93	2.267,17	2.366,15	2.369,80	2.367,76	2.377,05
Reserva do Iguaçu	2.158,43	2.163,15	2.320,38	2.583,26	2.436,42	2.518,14
Turvo	2.317,18	2.195,26	2.593,29	2.251,20	2.424,00	2.455,28
Paraná	3.474,01	3.512,62	3.650,70	3.602,32	3.568,91	3.479,02

Source: Prepared by the author based on data from MTE/RAIS, 2021

The data showed that the dimension of income, employment was the one that had the worst performance in the municipalities of the RIG, classifying itself as low performance. This result may be related to the participation of the agricultural sector in the GDP of the municipalities, impacting on the generation of employment and income, in line with this result is GDP *per capita of the* Region that was below the state average equivalent to 74.34% of the state average. Revealing that this index was the one that presented the greatest vulnerability for the development of the region.

Agreeing, so with the theories that claim that more agricultural societies are less developed than societies with greater participation of the secondary and tertiary sectors in the economy. In this sense, the ideas reinforce that the more society develops, the more agriculture loses participation in the economy. That is, the more agrarian the municipality, the lower the development in the employment and income dimension. Rostow (1974)



The results of this study corroborate this statement, as they showed that the municipalities of the RIG, because they have a strong participation of the Agricultural sector in the composition of GDP, presented a weak performance in the IPDM in the employment and income dimension.

## 4.4 CHALLENGES AND PROSPECTS OF DEVELOPMENT POLICIES FOR THE IMMEDIATE REGION OF GUARAPUAVA

With a fragile economic base, economically vulnerable, most of the municipalities of the RIG presented a weak performance in the Employment and Income index, which is a crucial aspect to be addressed in the formulation of future public policies for these municipalities. Although the vast majority of municipalities present a satisfactory performance in the dimensions of Health and Education, the total development index is impaired when the dimension of Employment and Income is taken into account.

When seeking to evaluate the importance of public policies, aimed at improving the quality of life and local development in small municipalities, it emphasizes that the relationship between the urban and rural areas, which integrates and brings both together, should be taken into account. Wanderley (2001)

In Pereira's (2021) analysis, RIG lacks regional identity, joint efforts of political, economic and social institutions, to create access to financial and investment markets to the main consumer markets of greater purchasing power, with the aim of advancing regional development.

In this perspective, in order to minimize the economic and social vulnerability of these municipalities, as well as to seek a process of sustainable development, the local government can use some policies such as: incentive to associativism, which is characterized by the grouping of people or municipalities that are part of the RIG for the realization and achievement of common objectives and ideals, in order to promote the development of the Region.

Incentive to cooperativism, the formation of cooperatives of rural producers, stimulus to agroindustry, with the processing of agricultural products adding value to production, aiming at a greater generation of employment and income, either from the available productive structure, which in most of the municipalities studied is essentially composed of activities related to agriculture, in order to seek to encourage activities that are aligned with the potentialities of each locality, to promote the endogenous development of the region.

Fostering entrepreneurship by promoting competitiveness and improving the business environment by supporting public policies that encourage local purchases, simplification and debureaucratization, working the protagonism of local actors.

Local government has different possibilities of action to boost endogenous local development, among them that of articulating measures that create a conducive environment; professional training;



intervention in sectors of great multiplier effect; incentive to new forms of organization of production; new forms of aid and cooperation; articulation with actors and internal and external dynamics; and increase of social productivity. The elaboration of in-depth diagnoses, the search for new partnerships (DOWNBOR, 2017).

#### **5 FINAL CONSIDERATIONS**

It was found that the agricultural sector has a strong influence on the RIG, so that it is a consensus in the literature that more agricultural societies are less developed than societies with greater participation in the sectors of industry and services, because the agricultural sector generates a smaller increase in the dimension of employment and income, considering even greater degree of informality and low qualification of the workforce and consequently lower income.

It was verified that due to the fact that most of the municipalities are characterized as small, with a fragile economic base, a situation provides the interdependence of these municipalities to the municipality with the best performance in the IPDM, which was Guarapuava, configuring it as a hub municipality, following the logic of the hierarchy between the places, according to the theory of Central Places, Responsible for the supply of goods and services to the municipalities of the region.

As for the challenges and perspectives in the promotion of development of the Immediate Region of Guarapuava, it was found that the main development challenge in the region is to promote improvement in the employment and income rates of the region, and this is the factor that presents greater fragility currently, and therefore, with public policies seek this direction.

With this perspective, promote endogenous local development policies, to articulate measures that create a conducive environment, in professional qualification, intervention in sectors of great multiplier effect, incentive to new forms of organization of production, new forms of aid and cooperation, articulation with actors and internal and external dynamics and elaboration of in-depth diagnoses, the search for new partnerships.

It is considered important to institute skills according to the economic bases of productive activities of agriculture. In a special way of the agro-industry of transformation of primary products, increasing the added value of production. That will result in a favorable environment for the development of agricultural, agro-industrial and service businesses, and consequently in the increase of employment and income generation.

# 7

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