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**Impact of Public Policies of Local Development on Employment and Income
Generation in Brazilian Tourism Industry**

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Abstract:

This paper aims to analyze the evolution of employment and income generated in the tourism industry in areas of regional concentration supported by public policies of regional development. We studied three Local Productive Arrangements in different social economic context and stages of development: Costa dos Corais and Lagoas e Mares do Sul (AL); and Uva e Vinho (RS). The data analyzed shows growth of establishments, employment and income in the tourist activities in the three LPAs studied, implying that such development policies can be an alternative for local development.

1. Introduction

Many regional studies have shown the advantages of concentrations areas for the development of firms and regional economy, as is the case of Italian industrial districts (Marshall, 1890; Krugman, 1995; Becattini, 1991). Based on this perspective government have developed policy incentives to encourage the emergence of this areas, in order to promote the generation of employment and income.

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In Brazil, those policies have been developed from 1980s and were initially focused on the development of industrial activity and small and medium companies. Since then, these areas have grown both in number and in fields of activity.

In 2004, the federal government launched a program to coordinate and organize initiatives for the development of Local Productive Arrangements (LPAs). Then, several LPAs in many different fields were identified, including in tourism activity.

This paper is concerned with the contribution of regional development policies for the generation of employment and income in these areas. More precisely its objective is to analyze the evolution of employment and income generated in the tourism industry in these regions. It also seeks to propose a panel of indicators for monitoring these variables in the Brazilian LPAs.

Considering this aim we have chosen three Local Productive Arrangements in two states with different social economic context: Costa dos Corais and Lagoas e Mares do Sul (AL); and Uva e Vinho (RS). The first two of them are located in the state of Alagoas one of the states of the country with the lowest level of development, while the other is located in Rio Grande do Sul, a state with high economic and social development.

These LPAs have arisen from different initiatives, besides they are at different stages of development. Whereas in Rio Grande do Sul the Uva e Vinho LPA was developed from a private initiative during the 1980's, in Alagoas both LPAs were developed from the federal program in 2004.

The purpose of this selection was to propose a panel of indicators that would apply to different contexts and also to compare data between the different regions, in order to assess the impact of public policies in each of these regions.

The expansion of these policies brings with it the need for monitoring its results. The proposition of these indicators, the analysis of the results and their implications for regional development policies will serve as guiding instrument for the planning of future actions of these programs.



2. Local Productive Arrangements – Origin and Main Concepts

The initial development of Local Productive Arrangements has been related to the experiences of Industrial Districts. This new form of organization of small and medium enterprises started by the concentration around the big textile companies that showed advantages associated with cost reduction in the use of machinery and specialized labor. Besides those companies presented technical capacity and level of learning more advanced than those outside of such locations (Marshall, 1890).

Such advantages provided the company more efficiency because of the proximity to suppliers, which reduces transfer costs and the availability of equipment, new technologies, products and services at more competitive costs. Some empirical evidences of those advantages were observed in industrial districts in Europa, especially in Italy, where there were a concentration of small and medium enterprises specialized in different kind of industries. Those studies emphasize the cooperation and interdependence of firms and the importance of public policies to develop competitive advantage (Brusco 1990, Becattini 1991).

Later, other studies have presented other advantages resulting of the cooperation and competition between firms located in concentrated areas, emerging the concept of clusters (Krugman 1995, Schmitz 1997, Porter 1998). Porter (1998) considers that a cluster is a geographic concentration of interconnected companies in a particular field that includes specialized suppliers (machinery and services), providers of infrastructure and other related industries. Besides, it also involves governmental and other institutions of specialized training, research and technical support.

Therefore, the flow of information and the network developed between firms situated in clusters stimulates innovation and the development of new techniques and technology (Gulati 1999, Bell 2005) making them more competitive. Hakanson (2005) emphasizes the growth of literature on kinds of network organization that enable the production of knowledge externalities (or spillovers).

In summary, the main advantages arising from geographic concentration of companies consist of:

- (I) increased efficiency arising from the reduction of transportation costs;
- (II) greater availability of specialized suppliers and labor;



- (III) more competitive and dynamic environment that stimulates innovation, and
- (IV) confluence of information generated from the local expertise that stimulates learning and promotes improvements of techniques and processes.

Therefore, firms located in concentrated areas, which present some level of collaboration would have a competitive advantage comparing to those, which are not.

Based on the prospects that industrial concentration might increase the regional level of employment and income (Delgado, Porter and Stern, 2011) public policies emerge to promote regional development.

In Brazil, during the 1980s and 1990s, the government promoted policies for the development of economically backward regions, which had some competitive gain such as the existence of inputs, or logistical advantage (Santos, Diniz and Barbosa, 2004).

Those initiatives were promoted by programs of the federal government in order to develop small and medium enterprises (SMEs) together with the national organization responsible for promoting those companies (Brazilian Service to Support Micro and Small Enterprises - SEBRAE), funding agencies and research institutes (Schiavetto and Alves, 2009). In this context, the concept of Local Productive Arrangements (LPA) develops.

According to SEBRAE, Local Productive Arrangements are “agglomerations of specialized firms located in the same geographic area that keeps ties of articulation, interaction, cooperation and learning from each other”. Those structures are supported by local institutions such as government, business associations, credit institutions, teaching and research. Besides, Local Productive Arrangements are characterized by the presence of small and medium enterprises with related productive activities and some level of cooperation (Santos, Diniz and Barbosa, 2004).

Therefore, cooperation between firms is one of the main characteristics of Local Productive Arrangements. Besides, it is also important to emphasize that LPAs are mainly composed by small and medium enterprises and initiatives, which are supported by the government to promote local development.



Considering this concept of LPA, this paper will describe some initiatives and the related public policies undertaken in Brazil to promote local development.

3. Public Policies for Local Development

Increasingly, the emergence of the various incentive policies for regional development, during the 1980s and 1990s, began to emphasize the need to coordinate those programs. In 2004, the federal government created the Permanent Working Group for Local Production (GTP) in order to organize initiatives for the development of Local Productive Arrangements.

This group currently involves 33 government and non-governmental organizations. Their main actions are:

- (I) to promote and support events focused in the subject;
 - (II) to encourage institutional organization in the area;
 - (III) to provide information and actions to develop Local Productive Arrangements;
 - (IV) to coordinate the actions of institutions with the demands referred to the regional and state plans and
 - (V) to develop an Information System of Local Productive Arrangements.
- (Ministério do Desenvolvimento da Indústria e do Comércio Exterior, 2013)³

According to a research conducted in 2005, there were about 957 Local Productive Arrangements in Brazil covering various activities (*Ministério do Desenvolvimento da Indústria e do Comércio Exterior, 2005*). Nowadays, this group operates with a focus on 267 priority LPAs indicated by local organizations in the.

³ Ministry of Development, Industry and Foreign Trade



State of Alagoas

Alagoas State is located in the northeast of Brazil. It presents an economic activity with little representation in the national GDP: only 0.7% according to IBGE (2013). Moreover, this State presents a Human Development Index at 0,631, which is considered a medium level of development, even though many of municipalities have a low range of development: below 0,5 (IPEA, 2013).

The socioeconomic context and the natural characteristics of Alagoas, with a large coastline, favor the development of tourism in the region as an alternative to local development.

Since the beginning of the Federal Program of Local development in 2004, the government of Alagoas has participated in this Program with a Plan of Development of Tourism Industry. Two areas were selected as Local Productive Arrangements to be developed in the state: (1) Lagoas e Mares do Sul and (2) Costa dos Corais. In both cases, the development of tourism is focused on the sun-and-beach segment.

The Lagoas e Mares do Sul LPA is composed of six municipalities and includes the state capital Maceio. The capital has the highest Human Development Index among the cities in the region (0,721), which is higher than the state (0.631). On the other hand, Costa dos Corais LPA covers 8 municipalities, which present the HDI below the state level (Table 1).



Table 1 - Human Development Index in municipalities of Costa dos Corais and Lagoas e Mares do Sul (AL)

LPA	Municipality	HDI (2010)	Population (2010)
Lagoas e Mares do Sul	Barra de São Miguel	0.615	7,574
	Coqueiro Seco	0.586	5,526
	Maceió	0.721	932,748
	Marechal Deodoro	0.642	45,977
	Pilar	0.610	33,305
	Santa Luzia do Norte	0.597	6,891
Costa dos Corais	Barra de Santo Antônio	0.557	14,230
	Japaratinga	0.570	7,754
	Maragogi	0.574	28,749
	Passo de Camaragibe	0.533	14,763
	Porto Calvo	0.586	25,708
	Porto de Pedras	0.541	8,429
	Paripueira	0.605	11,347
São Miguel dos Milagres	0.591	7,163	

Source: IPEA - Atlas do Desenvolvimento Humano Brasil 2013⁴

The program is being conducted in partnership with SEBRAE local, which is the organization responsible for managing and monitoring the activities in the program. SEBRAE also provides business development services to small-scale businesses and entrepreneurship training in the region. Besides, the project is also supported by a funding agency, which offers credit for local business, and by local entrepreneurs, which finance part of the activities of the project.

This project exists for 9 years. Among the activities already completed are training and formalization of entrepreneurs; promotion and marketing of the destination and improvement of tourist services. Nowadays, the program continues to be held and is now part of a state policy for local development.

⁴ Atlas of Human Development Brasil



State of Rio Grande do Sul

Other region considered for a Local Productive Arrangement is the **Uva e Vinho Region** (Grape and Wine Region) located in south of Brazil. This region includes 37 municipalities focused on the development of culture and wine tourism.

The development of this LPA has occurred in a very different context from the state of Alagoas. As shown in table 2, most part of the municipalities in the Region present a Human Development Index superior to 0,7, which is considered a high level of development.

Table 2 - Human Development Index in municipalities of Uva e Vinho Region

Municipality	HDI (2010)	Population (2010)
André da Rocha	0.720	1,216
Antônio Prado	0.758	12,833
Bento Gonçalves	0.778	107,278
Boa Vista do Sul	0.728	2,776
Bom Jesus	0.666	11,519
Cambará do Sul	0.697	6,542
Campestre da Serra	0.706	3,247
Canela	0.748	39,229
Carlos Barbosa	0.796	25,192
Caxias do Sul	0.782	435,564
Coronel Pilar	0.727	1,725
Cotiporã	0.741	3,917
Esmeralda	0.680	3,168
Fagundes Varela	0.763	2,579
Farroupilha	0.777	63,635
Flores da Cunha	0.754	27,126
Garibaldi	0.786	30,689
Gramado	0.764	32,273
Guabiju	0.758	1,598
Guaporé	0.765	22,814
Ipê	0.728	6,016
Jaquirana	0.614	4,177
Montauri	0.764	1,542
Monte Alegre dos Campos	0.650	3,102
Monte Belo do Sul	0.752	2,670
Muitos Capões	0.702	2,988
Nova Araçá	0.785	4,001
Nova Bassano	0.747	8,840
Nova Pádua	0.761	2,450
Nova Petrópolis	0.780	19,045



Municipality	HDI (2010)	Population (2010)
Nova Prata	0.766	22,830
Nova Roma do Sul	0.741	3,343
Paraí	0.773	6,812
Picada Café	0.758	5,182
Protásio Alves	0.733	2,000
Santa Tereza	0.746	1,720
São Francisco de Paula	0.685	20,537
São Jorge	0.732	2,774
São José dos Ausentes	0.663	3,290
São Marcos	0.768	20,103
São Valentim do Sul	0.764	2,168
Serafina Corrêa	0.760	14,253
União da Serra	0.733	1,487
Vacaria	0.721	61,342
Veranópolis	0.773	22,810
Vila Flores	0.742	3,207
Vista Alegre do Prata	0.780	1,569

Source: IPEA - Atlas do Desenvolvimento Humano Brasil 2013

Moreover, the economy of Rio Grande do Sul State represents 6.7% of the National GDP and it is a very important producer of agribusiness and industrial products. The number of LPAs in the state reflects this situation: there are 36 areas identified as a LPA by federal and state organizations in various activities including automotive, mechanical, leather, footwear and furniture industries, jewelry business, viniculture and other activities (Redesist).

Despite of the current diversity of Local Production Arrangements, in the beginning of local development policies in the state (during the 1990's) the LPAs supported mainly the industry activities.

The current dynamism of Local Arrangements Productive occurred during the second phase of the LPA policy in 2003. During this period, the activities of trade and services became the most developed segments. During the third phase of the program, marked by the government change, LPAs remained as inducers of development with no major changes (Redesist).



Thus, the policy of local production in Rio Grande do Sul is more consolidated and it has been developed continuously by state governments, even since before the federal government policy to be implemented.

In the case of LPA tourism in the **Uva e Vinho Region**, its development was the result of private initiative. In order to resume tourist activity, local entrepreneurs sought to promote the cultural tourism. In 1985, an association formed by 11 departments of Tourism (**Atuaserra** - Tourism Association of Northeast Serra) was created to coordinate actions for promoting the area of the vineyard.

Since the establishment of Atuaserra some critical activities were carried out for the development of tourism in the region, mainly from public-private partnerships. As an example it is worth noting Maria Fumaça train, which is a cultural attraction of the region that involves a ride on an old steam train and includes wine tasting and performances by folk groups. Besides that, the decline of the cooperative system in the sector of wine results in the development of wine tourism (Paulus, 2013).

Therefore, it is possible to notice that the Uva e Vinho Region is a case of Local Arrangements Productive already consolidated. Rio Grande do Sul was one of the pioneer states in carrying out local development policies, which have been performed continuously.

Regarding to the tourism, this situation enabled the revitalization and diversification of the local economy, which used to be focused only on the production of wine. This LPA has also a strong impact on job creation and increasing of local income.

The next chapter will analyze the sources of statistical data to measure the impact of LPA on employment.

4. Employment Statistics and Data Sources

This chapter intends to analyze the impact of regional development public policies for the local job generation. In order to achieve this goal, the authors elaborated an



Indicators Dashboard to show the **evolution of the number of jobs and job formalization in tourism industry.**

We assume that the expansion of employment in this region is the product of LPA program. To measure the job creation and job formalization, we compare employment indicators in a period of the last 10 years during the implementation of public policies of Local Arrangements Productive.

To perform this analysis we have chosen three Local Productive Arrangements where there were developed regional development policies. Two of them are situated in Alagoas State, which presents a socioeconomic context of low development level. In these LPAs the public policies for regional development have started since the beginning of the federal program in 2004.

On the other hand, the Uva e Vinho LPA in Rio Grande do Sul State has developed a regional policy since the 1980s. Thus, we expect to find results that indicate a more consolidated stage of development.

In addition, the socioeconomic context of Rio Grande do Sul state is very different from Alagoas state, as Rio Grande do Sul has a more diversified economy and a better social context.

Considering these three areas of research, we chose the following indicators to analyze the evolution of employment:



Table 3 – Proposed Indicators and Data Source

Indicator	Data Source
Total Number of establishments in tourism activities	Annual Social Information Report (RAIS)
Growth Rate for establishments	Annual Social Information Report (RAIS)
Number of establishments by tourism activity	Annual Social Information Report (RAIS)
Total employment in tourism activities	Annual Social Information Report (RAIS)
Number of employment by tourism activity	Annual Social Information Report (RAIS)
Growth Rate for employment	Annual Social Information Report (RAIS)
Absolute annual change between admissions and dismissals	General Register of Employed and Unemployed (CAGED)
Evolution of the annual average income in tourism activities	Annual Social Information Report (RAIS)
People 10 years or older, employed during the reference week, by occupation and category of employment in main job, by activity section of the main job	Brazilian Institute of Geography and Statistics (IBGE) – Population Census (2010)

As shown in Table 3, the data are mainly from Annual Social Information Report (**RAIS**) and General Register of Employed and Unemployed (**CAGED**) database, which consist of administrative record of Brazilian federal government on employment.

RAIS presents information regarding number of establishments, formal employment and average income by economic activity, while **CAGED** provides monthly information about the balance of admissions and dismissals.

In order to evaluate changes in the number of formal jobs we also used data from the Brazilian Population Census (2010) and National Housing Sampling Survey (**PNAD**), both from the Brazilian Institute of Geography and Statistics (IBGE).



We emphasize that such information are available for all the Brazilian States. The choice of data from National Surveys of National Statistical Office and Administrative Registers was intentional. The authors considered those characteristics for proposing a Dashboard Indicators that could evaluate the impact of LPA policies in all national territory and that could enable to compare the results of those policies.

5. Results

In order to analyze the impact of public development policies in tourism undertaken, we evaluate the proposed indicators for LPAs in different stages of development: a consolidated LPA in Rio Grande do Sul with almost 20 years of existence and two more recent LPAs in Alagoas (2004). The period analyzed was from 2002 to 2012. We have chosen to select a period of at least 10 years to assess progress. Below we present the main results.

5.1 Costa dos Corais – State of Alagoas

Evolution of number of tourism establishments

In 2002, **Costa dos Corais Region** had only 24 registered establishments in tourism activities, which generated 427 formal jobs. On the other hand, in 2012, this region presented about 136 tourism establishments, which employed 1,769 formal workers.

Over the 10 years (2002-2012), that growth occurred mainly in 2004, the first year of implementation of LPA Program, when number of establishments grew 45% (compared to 2003). During the following three years (2005, 2006 and 2007), the annual growth rates were of 34% and 37% (see Table 4).

Evolution of tourism employment

Concerning the number of jobs, the biggest growth rate was in 2007: 36%, comparing to 2006. The previous 2 years also presented high growth rates, 27% (2006) and 26% (2005).

The Table 4 below shows the evolution of the number of establishments and jobs in Costa dos Corais.



Table 4 – Growth Rate and Total Establishments and Employment Number in Costa dos Corais Region 2002-2012

Year	Establishments		Jobs	
	Total	Growth Rate	Total	Growth Rate
2002	24	-	427	-
2003	22	-8%	426	0%
2004	32	45%	480	13%
2005	43	34%	603	26%
2006	59	37%	768	27%
2007	81	37%	1,042	36%
2008	77	-5%	1,245	19%
2009	85	10%	1,355	9%
2010	106	25%	1,484	10%
2011	133	25%	1,488	0%
2012	136	2%	1,769	19%

Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)⁵

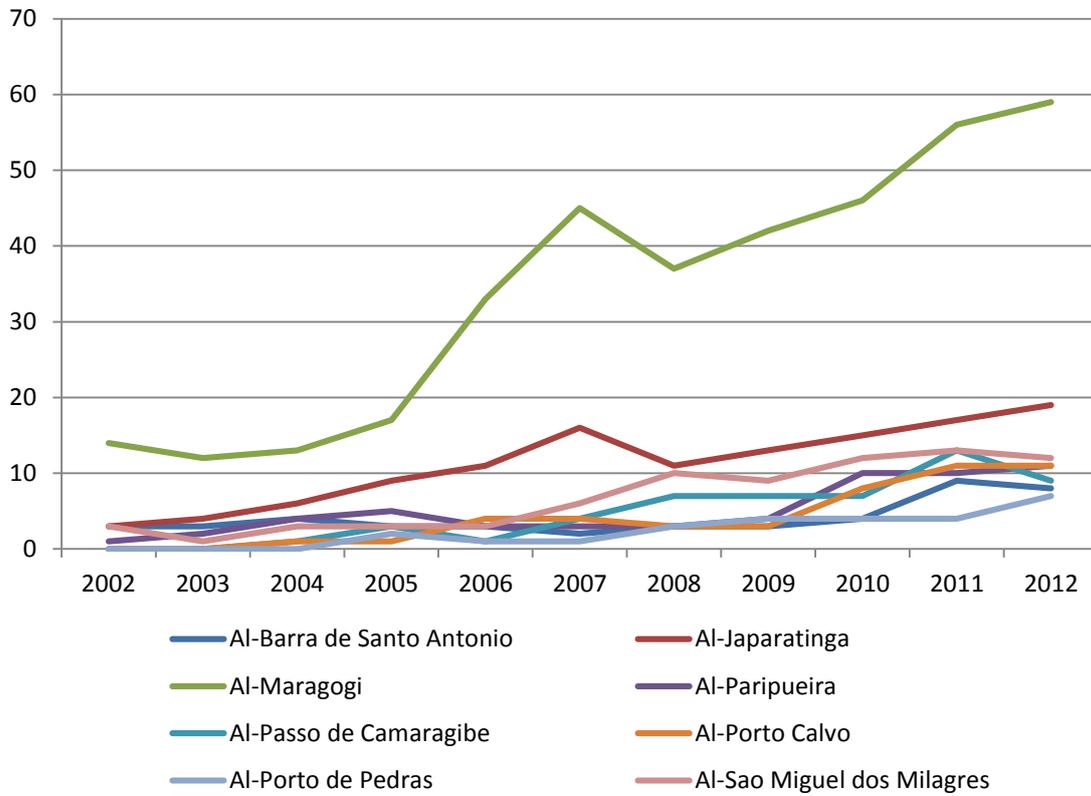
This Table of Number of Jobs and Establishments shows a significant increasing in tourism activity in the region, after the implementation of the LPA program. Although such growth does not occur only because of such policies, it is important to recognize the participation of such program for the evident growth in the region.

However, growth has not occurred evenly in all municipalities. In the Costa dos Corais Region, municipality of **Maragogi** showed a much higher growth rate than the others, followed by **Japaratinga**, which presents a similar curve concerning number of establishments. All the other municipalities presented a not very significant evolution in the numbers (Chart 1).

⁵ Ministry of Labour and Employment. Annual Social Information Report (RAIS).



Chart 1 – Number of Establishments in Tourist Activities by municipalities – Costa dos Corais – 2002-2012

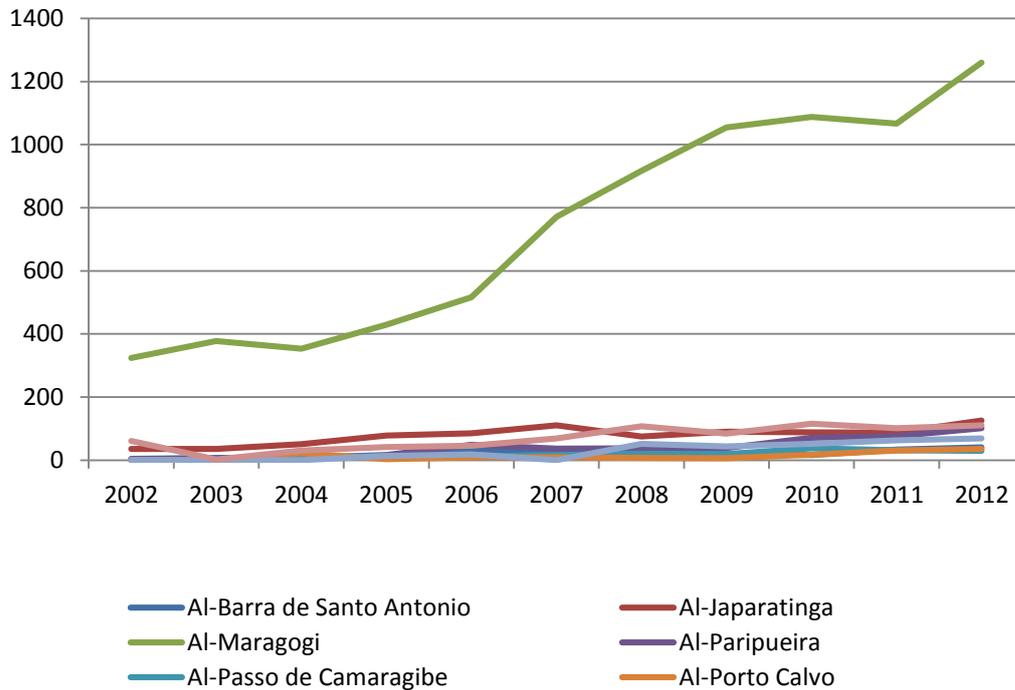


Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)

Similarly, the growth of number of jobs has been concentrated in Maragogi (Chart 2). In Japaratinga, there was also an increasing in number of establishments, but number of jobs has not increased. We noticed a stability, which may characterize further the informality of the local economy.

The social and economic environment of tourism in the Costa dos Corais Region request a further study of the informal employment. However, this kind of analysis for a small municipality can be only conducted for a year of Population Census (2010).

Chart 2 – Total Number of Jobs in Tourist Activities by municipalities – Costa dos Corais – 2002-2012



Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)

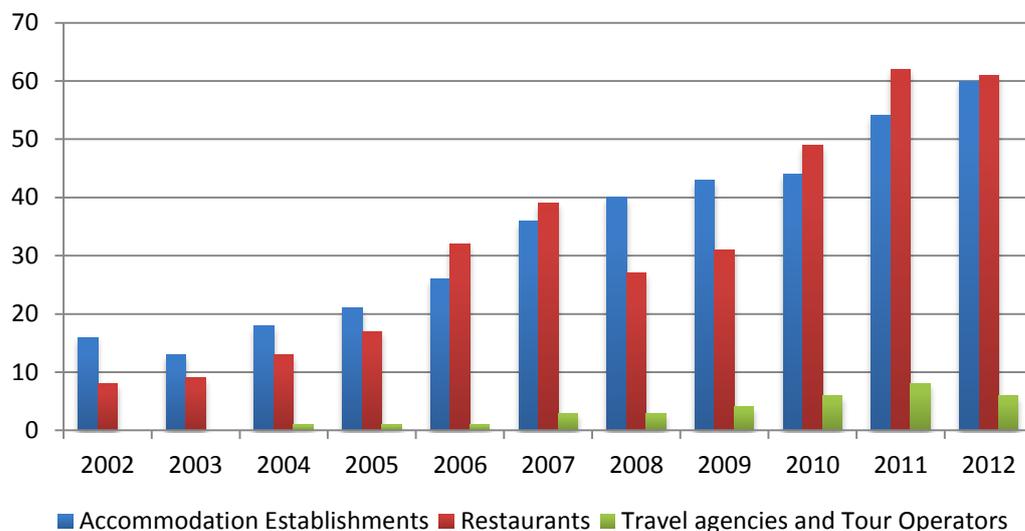
Disaggregating these data by activities, we observed that the growth of establishments of tourism occurred mainly in **Restaurants and Accommodation Activities**, while Travel Agencies and Tour Operators presented lower growth (Chart 3).

Meanwhile, in the Transportation Industry there was insignificant impact on the road segment. The Airline Industry was disregarded, because there is no airport in the region.

Besides, activities related to culture did not show any significant increasing, because tourist attractions of the region are natural: sun and beach. Considering the low weight of these activities, we chose not to include them in the analysis by activity (Chart 3 and Chart 4).



Chart 3 – Number of Establishments in Costa dos Corais by activity – 2002-2012

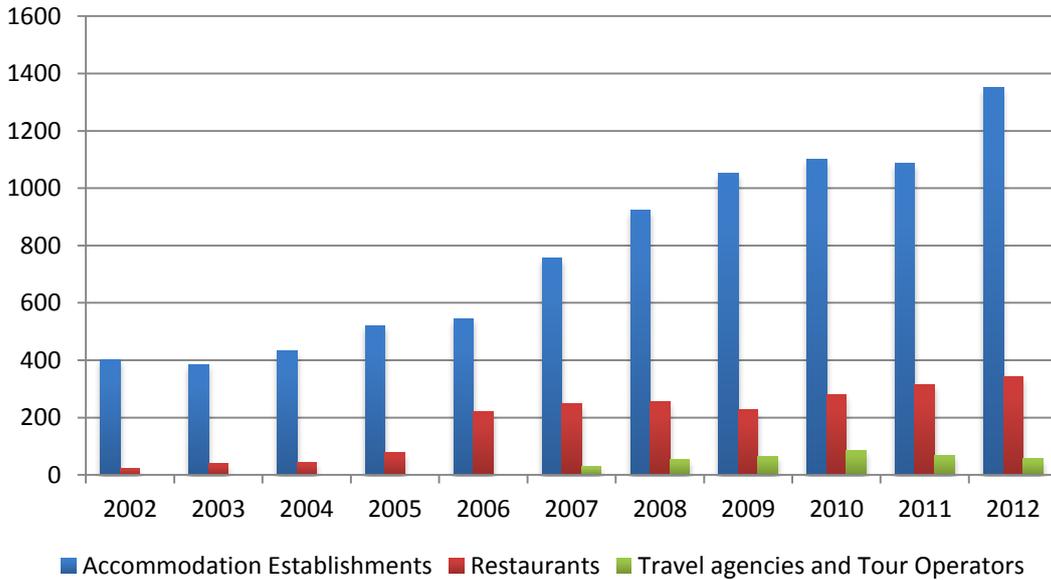


Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)

Chart 3 also shows that the largest number of establishments in the region are **Accommodation Activity and Restaurants** and, during the last three years, number of restaurants was higher than accommodation establishments.

However, when we compare the evolution of employment, we can note that accommodation was the activity that generated most of the jobs in this Region, presenting values much higher than other tourism activities analyzed (Chart 4).

Chart 4 – Total Number of Jobs in Costa dos Corais by activity – 2002-2012



Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)

The growth of employments in the Region is a result not only of new jobs provided by the new local establishments, but also by the formalization of activity among small and medium entrepreneurs.

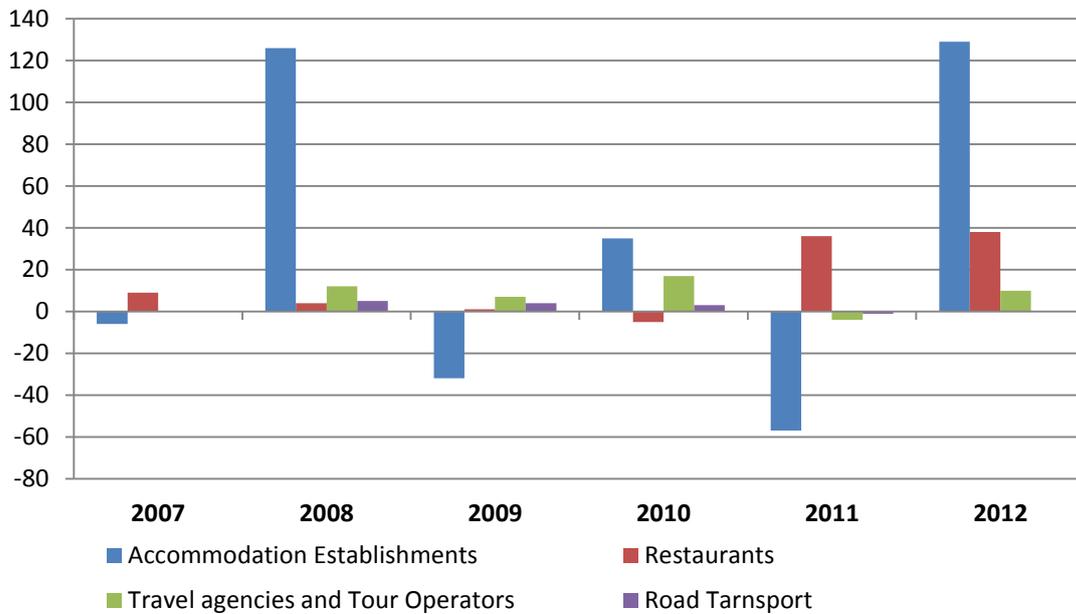
It is important to stress that one of the priority actions of Local Productive Arrangement program in Costa dos Corais is the formalization of micro and small entrepreneurs. Thus, the government has offered training to entrepreneurs and special credit lines for small entrepreneurs formalized.

Data from CAGED show the results of formalization effort. The difference between the annual number of admissions and dismissals in this tourism activity generally shows positive results throughout the study period. The number of hires to formal employment was higher than dismissals, which highlights a great contribution of tourist market for the formalization of employment.

The following graph shows that accommodation activity presented a negative balance during two years (2009 and 2011) and relative stability in 2007. It is important to note that despite the negative balance (-6), number of admissions increased over the years: from 282 in 2007 to 815 in 2012.

However, seasonality of the tourism industry explains why the number of shutdown was also high.

Chart 5 – Balance between number of admissions and dismissals by activity in Costa dos Corais – 2007-2012



Source: Ministério do Trabalho e Emprego. Cadastro geral de empregados e desempregados (CAGED)⁶

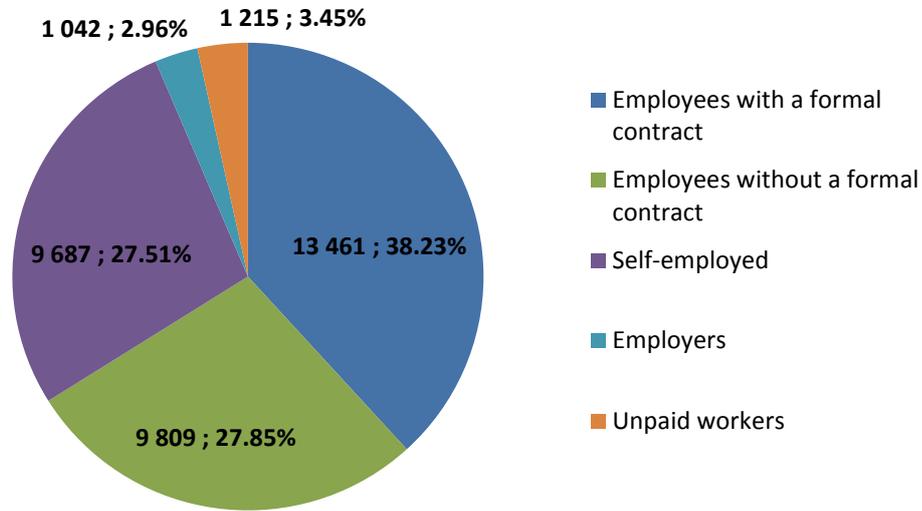
Note: Data was not available before 2007.

Despite advances on employment, the formalization is still a challenge for the government of the state of Alagoas. According to data from the Brazilian Population Census (IBGE, 2010) the number of employees in the activities of Hotel and Restaurants Activities in Alagoas was 35,213, in 2010. However, only 38% of these jobs were formal; informal jobs were 28% and other 28% were self-employer, as shows the Chart 6.

A significant proportion of self-employer workers emphasize the need for formalization focusing on individual entrepreneurs, which is consistent with the current actions of the LPA program.

⁶ Ministry of Labour and Employment. General Register of Employed and Unemployed (CAGED)

Chart 6 - People 10 years or older, employed during the reference week in Restaurants and Accommodation Activities - Alagoas - 2010



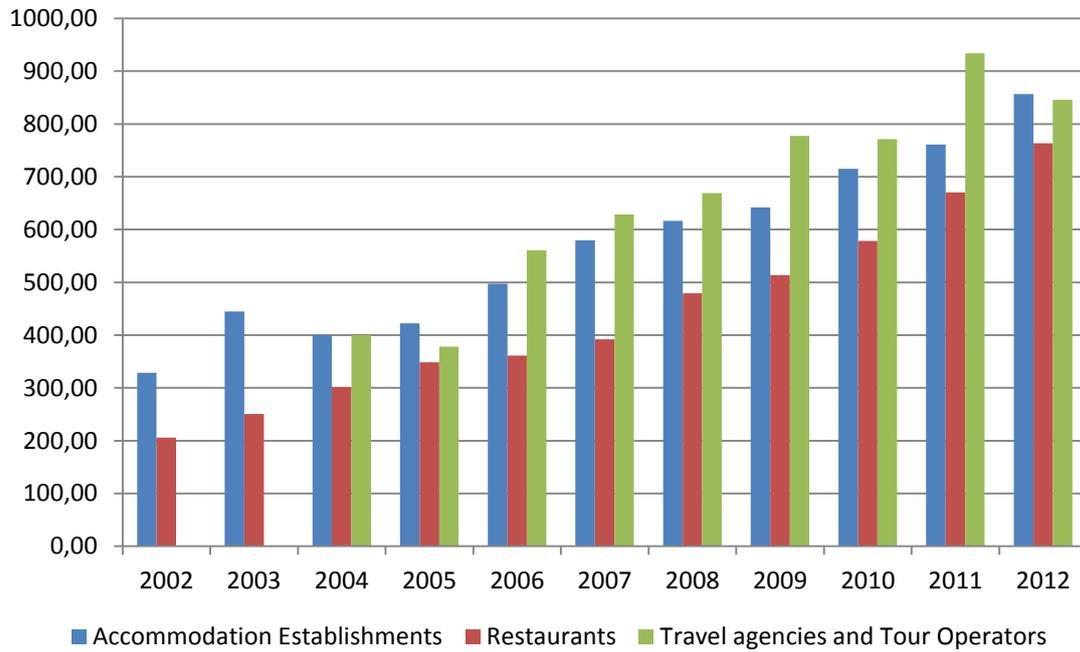
Source: IBGE. Censo Demográfico (2010). ⁷

Regarding to the average pay of workers, it also presented a growth since 2002 in all activities. The sector with the highest growth was Travel Agencies and Tour Operators. This might be caused by the fact that this industry occupies fewer less skilled labors and also because of the growth of demand for expertise in customer service.

On the other hand, Accommodation Establishments and Restaurants generate jobs massively in basic levels, which require lower qualification, consequently with lower wages. In Accommodation Industry, there is a greater variation than in restaurants, where average wages are lower.

⁷ Population Census

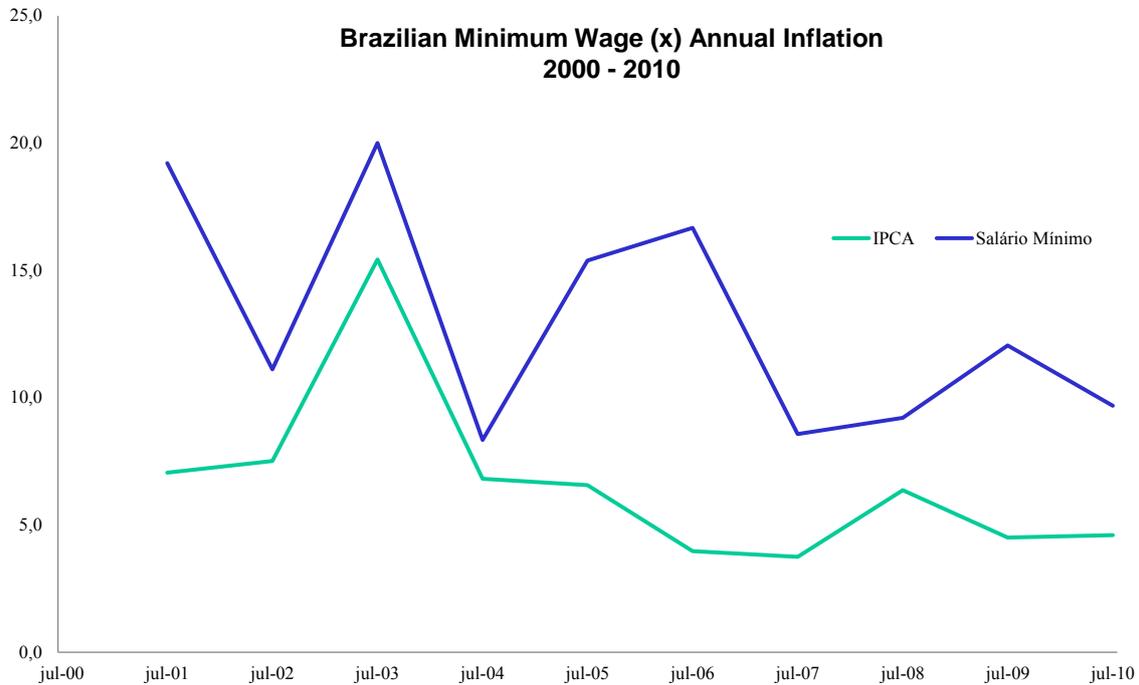
Chart 7 – Average Monthly Remuneration in Costa dos Corais by activity – 2002-2012



Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)
 Note: Data not available for travel agencies and Tour Operators during 2002 to 2003

It is important to note that growth of average earnings, especially in the Activity of Restaurants, accompanied the increase of the Brazilian minimum wage (Chart 8).

**Chart 8 – Monthly Minimum Wage and Annual Inflation –
2000 – 2010**



Source: IBGE and Brazilian Minister of Employment

These data are consistent with the IBGE’s PNAD (National Survey of Households) which indicates that, in the northeast region of the country, most of the occupied population (45%) had income of one minimum wage in 2011. This same Survey also indicates that the average income (monthly) for Alagoas State is R\$ 814.00 ⁸ in the same period.

Therefore, the improvement of income in tourism activities in Costa dos Corais, as well as in the Northeast region of the country, and better income distribution should be a priority for the government to promote development in this area.

⁸ In 2011, the monthly Brazilian minimum wage was R\$ 545.00 (US\$ 333.00).



5.2 Lagoas e Mares do Sul – State of Alagoas

First, it is important to notice that **Lagoas e Mares do Sul Region** has a higher number of tourism activity than Costa dos Corais LPA: in 2012 it had 1,857 establishments of tourism industry which generated 12,482 jobs. This is quite justified, because this region includes the capital of the state (Maceio). This city is an important entrance of the state because of the presence of the airport, which directly affects local tourism. Maceio also concentrates most part of the business of Alagoas, which also generates business tourism⁹.

Lagoas e Mares do Sul Region also concentrate most of business and tourism of the state. Therefore, this Region has the more meaningful establishments and jobs increasing. However, the rates of growth of establishments and jobs have been lower than in Costa dos Corais.

As Table 4 shows, the most significant growth rates were 5% in the years 2009 and 2012, excluding the growth of 60% in 2006, which was clearly a result of the change of Classification National Industries (CNAE 2.0) during this year and, therefore, is not due to the policies for regional development.

It is also important to point that the impact of policies on employment on the number of establishments, which can be a result of formalization policies and due to the creation of new employment opportunities in existing enterprises.

The highest rates of employment growth were registered in 2008 and 2009 (about 10% of growth).

⁹ In 2010, the Capital Maceió was responsible for 49,3% of the GDP of the Alagoas State.



Table 5 – Growth Rate and Total Establishments and Employment Number in Lagoas e Mares do Sul Region 2002-2012

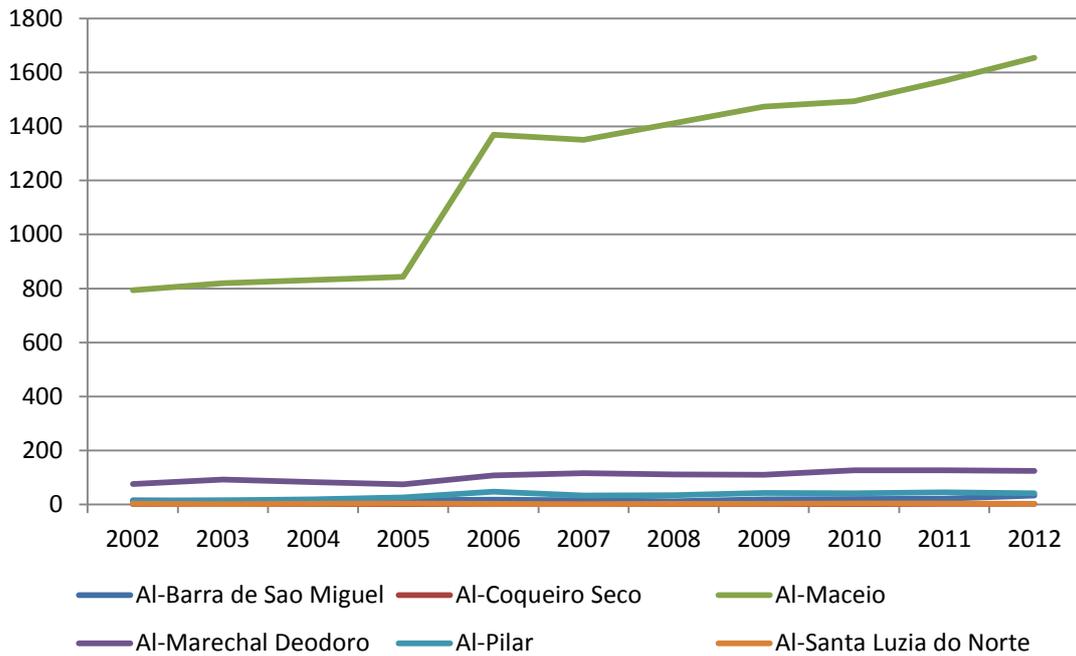
Year	Establishments		Jobs	
	Total	Growth Rate	Total	Growth Rate
2002	899	-	5,734	-
2003	943	4.9%	5,717	-0.3%
2004	949	0.6%	5,741	0.4%
2005	964	60.5%	6,216	8.3%
2006	1,547	3.4%	8,091	30.2%
2007	1,519	-1.8%	8,272	2.2%
2008	1,571	3.4%	9,121	10.3%
2009	1,649	5.0%	10,066	10.4%
2010	1,686	2.2%	10,572	5.0%
2011	1,769	4.9%	11,514	8.9%
2012	1,857	5.0%	12,482	8.4%

Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)

Like Costa dos Corais Region, Lagoas e Mares do Sul LPA also has a higher number of tourism establishments and jobs in only one municipality: Maceio, which is the state capital.

As the Chart 9 below shows, from 2002 to 2012 there was a significant increase in the number of establishments in the region in the city of Maceio, while other municipalities had much lower, which further accentuated these differences.

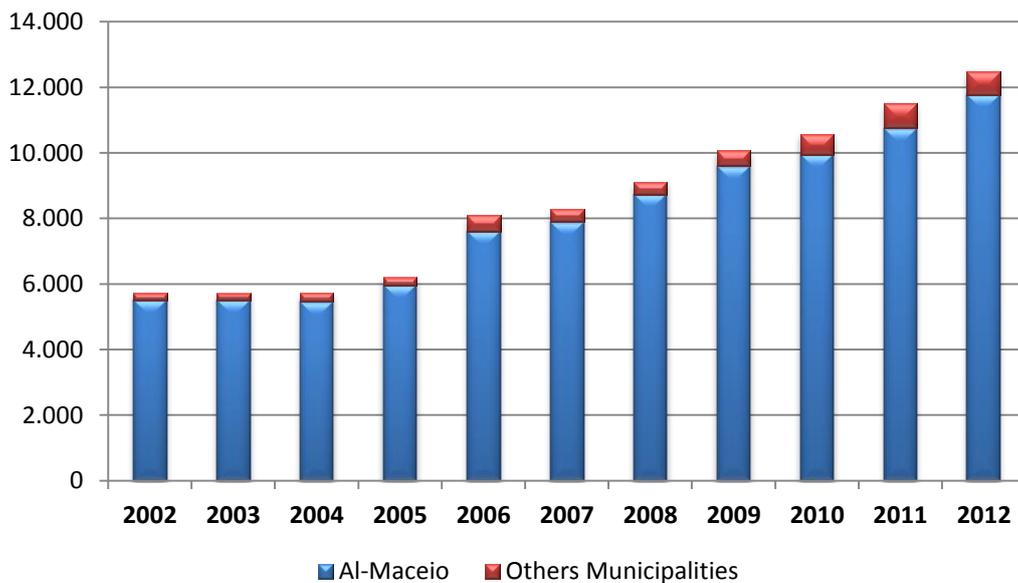
Chart 9 – Number of Establishments in Tourist Activities by municipalities – Lagoas e Mares do Sul – 2002-2012



Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)

The contribution from the state capital to the result observed in the region is evident when we look at the number of jobs. Maceio accounts for over 90% of jobs in the region (Chart 10).

Chart 10 – Total Number of Jobs in Tourist Activities– Lagoas e Mares do Sul – 2002-2012



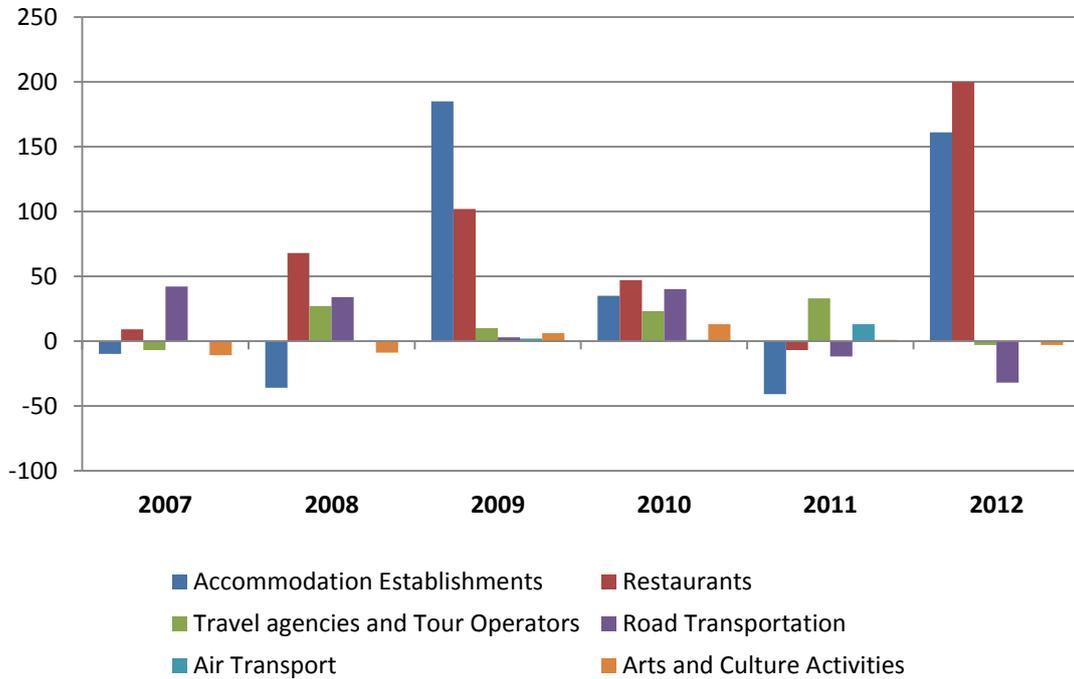
Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)



Besides, the employment grew during the period analyzed, mainly due to the Maceio performance. However, we can also notice that other municipalities showed increased participation in employment, which we can consider as an inductive effect of the increase observed in the city of Maceio.

The CAGED data also revealed growth in the number of new hires in tourism activities: from 2,701 in 2007 to 4,655 in 2012, which shows a significant increase in the formalization of the activity, especially considering that the increase in the number of establishments was not so significant. In turn, the balance between admissions and dismissals was positive for almost the whole period, with exception of 2011. In this year, there was a high number of layoffs, mainly in the hospitality industry (Chart 11).

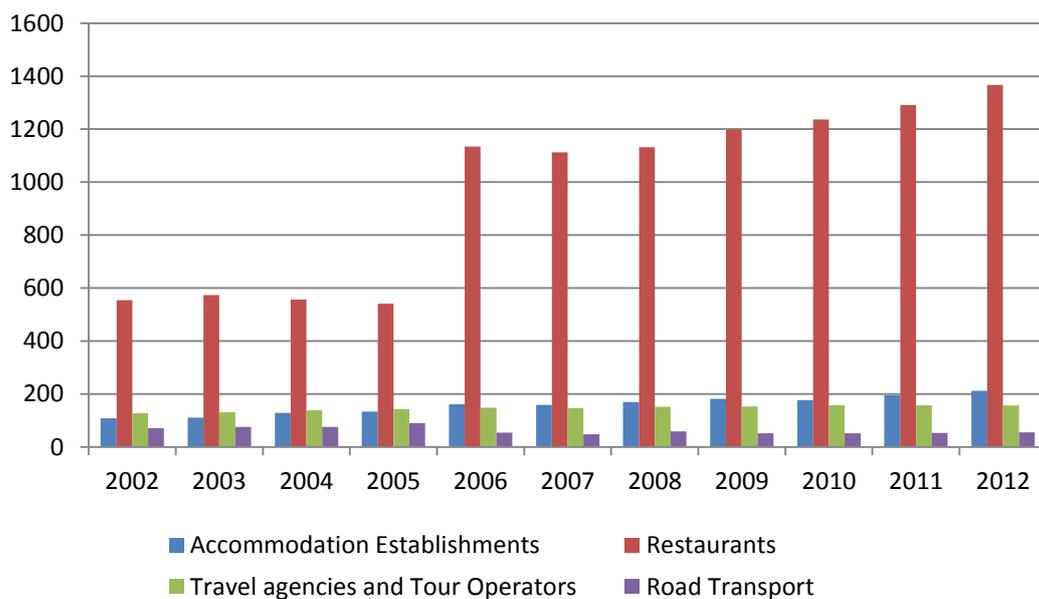
Chart 11 – Balance between the number of admissions and dismissals by activity in Lagoas e Mares do Sul Region – 2007-2012



Source: Ministério do Trabalho e Emprego. Cadastro geral de empregados e desempregados (CAGED)

Note: Data was not available before 2007.

Chart 12 – Total Number of Establishments in Lagoas e Mares do Sul by activity – 2002 - 2012



Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)



About the number of establishments by category of activity, it appears that most of them are restaurants and other eating establishments, which, by tourism definition, part of them are not considered tourist establishments (Chart 12). The other activities presented number of establishments less than 200 establishments each. Therefore, a more careful analysis of the data reveals that the data are overestimated for tourist establishments and jobs generated in this Region.

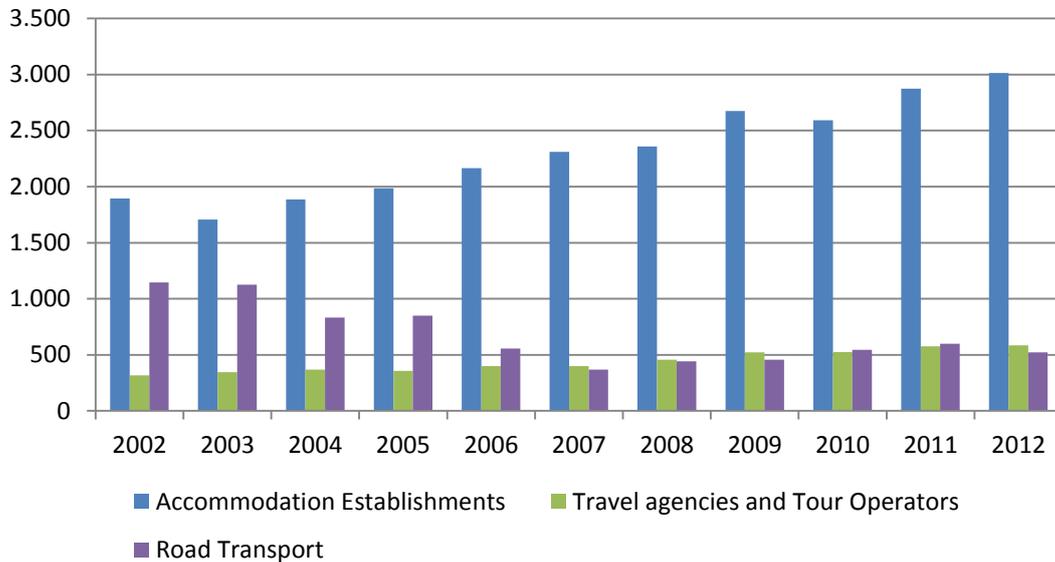
Besides restaurants, we also observed a growth of others activities (accommodation establishments, travel agencies and tour operators) with exception of road transport. This activity suffered a considerable drop in 2006 (90 establishments to 54), probably also related to the change of CNAE code, and kept stable during the remaining years. Such a fall situation and posterior stability may also be related to the growth of the airline industry.

The data in the airline industry were not included in the chart because there were no significant changes in the number of firms, as it was expected. Moreover, regarding the number of jobs, the discontinuity of the classification of this activity had a significant impact on data, which prevented a more detailed analysis.

The activities related to art and culture did not present significant values for establishments and jobs when compared with other tourism activities in the region, and neither showed significant growth rates. It is why we decided not to include it in the chart. Once again, it is why the main tourism attraction in the region is Sun and Beach segment.

Excluding restaurant activity, data on employment in the region reveal a progressive increase in the number of jobs from 2004 to 2012, even excluding the year of 2006 due to the change in classification (Chart 13). The accommodation activity stands out in job generation in the region reaching about 3,000 jobs in the year 2012 throughout the region.

Chart 13 – Total Number of Jobs in Lagoas e Mares do Sul by activity – 2002-2012



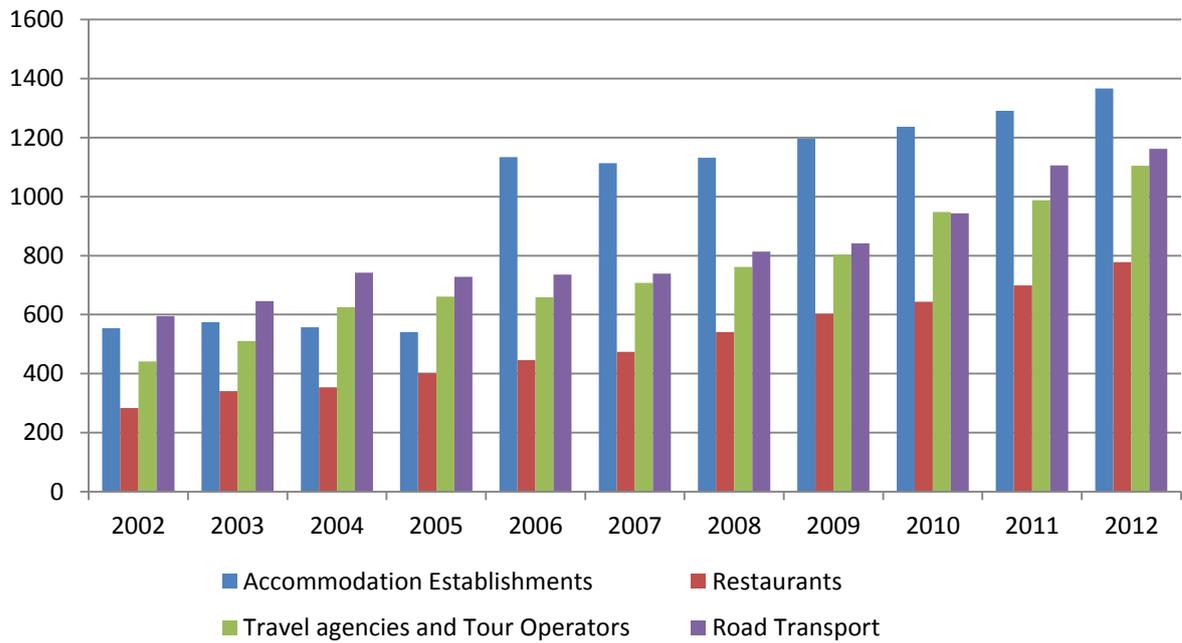
Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)

Compared to Costa dos Corais LPA, we observe that travel agencies and tour operators have greater representativeness in number of establishments and employment in the Region of Lagoas e Mares do Sul. This can be explained by the presence of state capital which is the main gateway to the other regions. Therefore, travel organizers companies are concentrated in this region.

Regarding to the transport road, considering only data after the change of CNAE classification of activities, there is progressive increase in jobs, with exception of 2012. Taking into consideration that road industry has showed no growth in the number of companies, as seen in Chart 13, this may be explained by the gradual increase of formalization in this activity or it can also be result of an increase in the number of routes operated.

As showed in Chart 14, the average remuneration in all the activities grew in the analyzed period. The accommodation industry has the highest average wages and higher growth for the period, followed by road transport.

Chart 14 – Average Remuneration in Lagoas e Mares do Sul by activity – 2002-2012



Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)

Although it is possible to notice a growth in average earnings, this income is still low: from one to two minimum wages. This situation occurs specially in restaurants, where the value corresponds to about one minimum wage of each period.



5.3 Uva e Vinho Region of LPA – State of Rio Grande do Sul

The Uva e Vinho LPA (*Grape and Wine Region*) has a number of tourist establishments significantly higher than Alagoas LPAs, especially considering that in this LPA does not include neither city with more than 500,000 inhabitants, nor the state capital. On the other hand, the number of municipalities included in the Region Uva e Vinho is greater than other LPAs. However, analyzing data by municipality, it is still superior in Rio Grande do Sul.

Another factor that explains such difference in the numbers is that the regional development policy is more consolidated in this region, existing for longer.

The fact that regional development policies exist for a longer period also have an impact on growth rates. Even though the number of establishments has grown during most of the years, in some of the analyzed periods the numbers are close to the stability (2010 and 2011), besides the last year analyzed showed a slight decrease. Therefore, because this LPA is in a more consolidated stage of development it showed growth rates lower.

Again, it is important to emphasize that the evolution presented in 2006 is being disregarded due to the change of the classification code CNAE.

Growth rates in the number of jobs, in turn, continued to show growth, reaching 10% in 2011. This may be a result either of the formalization of employment, or the expansion of existing establishments.



Table 6 – Growth Rate and Number of Establishments and Employment in Uva e Vinho Region 2002-2012

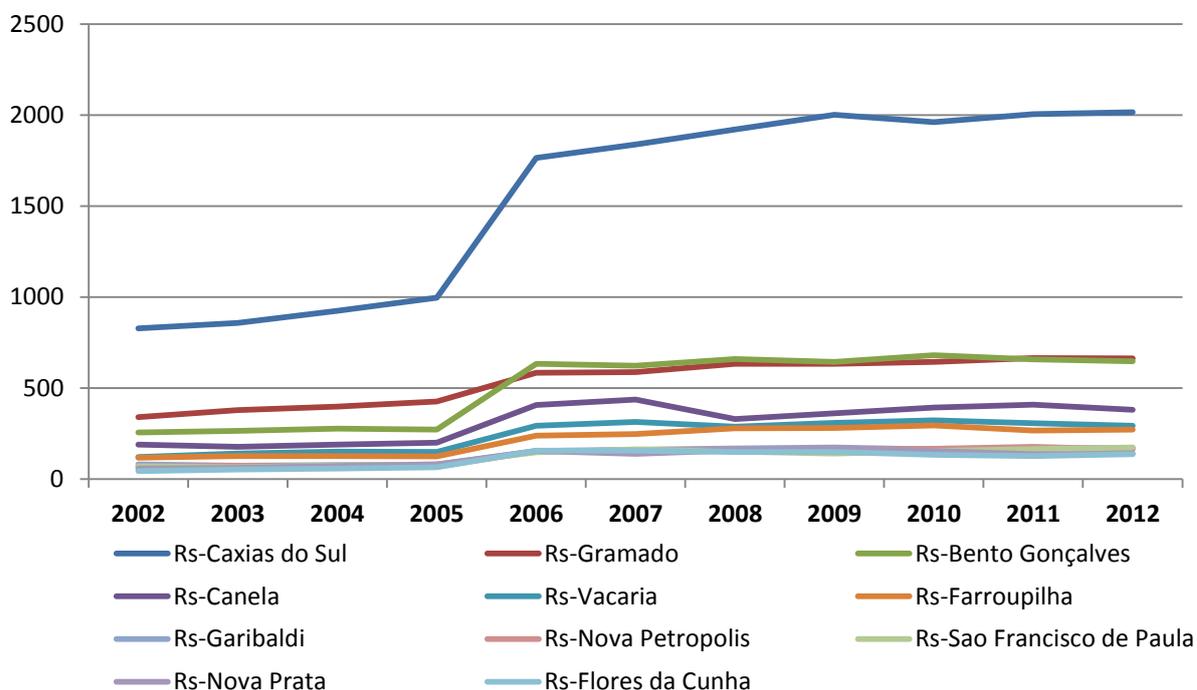
Year	Establishments		Jobs	
	Total	Growth Rate	Total	Growth Rate
2002	2.408	-	6.280	-
2003	2.543	5,61%	6.464	2,93%
2004	2.688	5,70%	7.130	10,30%
2005	2.823	5,02%	7.737	8,51%
2006	5.162	82,86%	9.683	25,15%
2007	5.335	3,35%	9.931	2,56%
2008	5.401	1,24%	10.819	8,94%
2009	5.562	2,98%	11.222	3,72%
2010	5.594	0,58%	12.125	8,05%
2011	5.629	0,63%	13.380	10,35%
2012	5.541	-1,56%	14.214	6,23%

Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)

As also observed in Alagoas LPAs, in Rio Grande do Sul LPA, most of the tourist establishments are also concentrated in a particular municipality. In this case, in **Caxias do Sul** (Chart 15). This city holds 31.5% of establishments in the region and 39.1% of the jobs.

However, other municipalities are also representative, such as **Gramado**, which corresponds to 11% of the number of establishments and 21% of jobs; **Bento Gonçalves** with 10% of total number of establishments and 11% of jobs and **Canela** with 6% and 7%, respectively. It is important to note that this analysis considers all the period investigated.

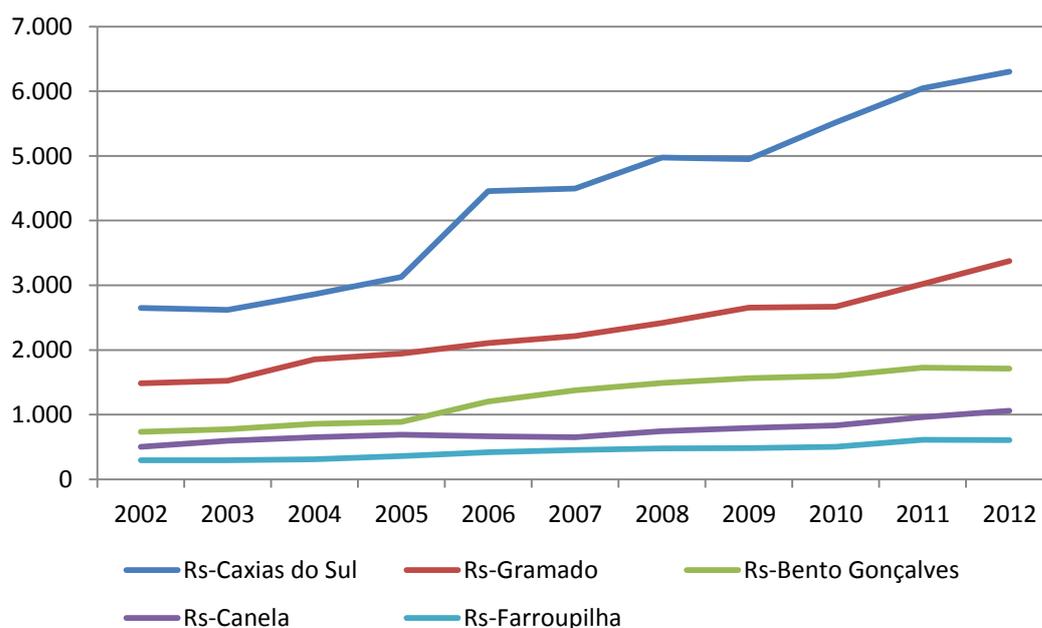
Chart 15– Number of Establishments in Tourist Activities by municipality – Uva e Vinho Region – 2002-2012



Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)

Note: Including only municipalities with accumulate frequency around 80%.

Chart 16 – Number of Jobs in Tourist Activities by municipality – Uva e Vinho Region – 2002-2012



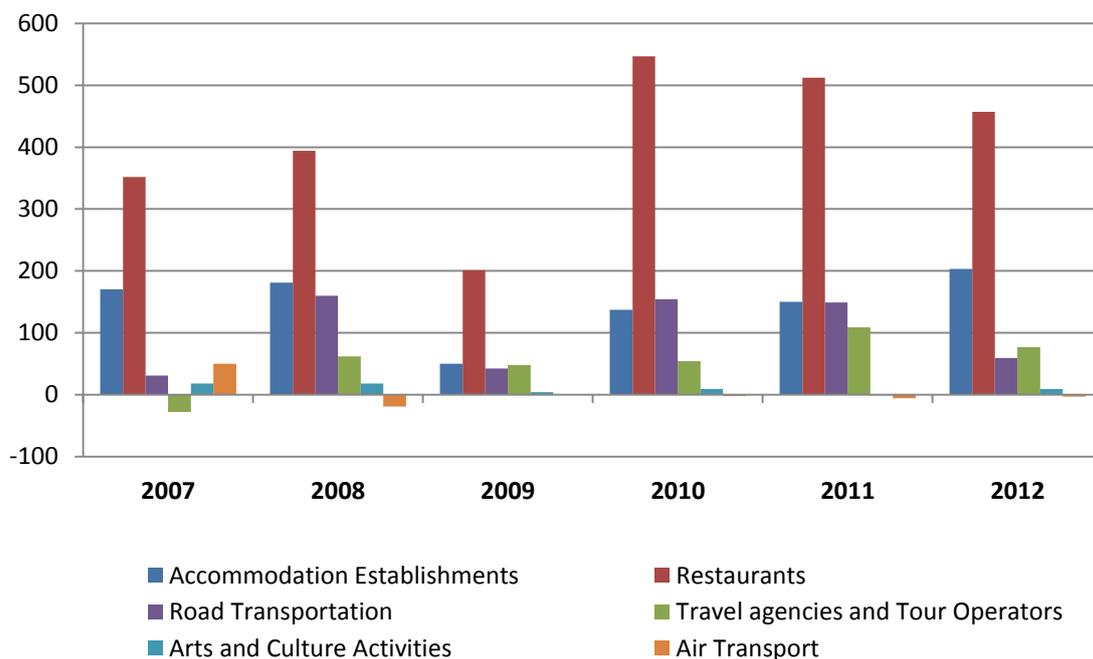
Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)

Note: Including only municipalities with accumulate frequency around 80%.

Charts 15 and 16 show the evolution of the number of establishments and jobs in the municipalities with accumulate frequency around 80%. The graphs show that the establishments are present throughout the **Uva e Vinho Region**, while the jobs are concentrated in certain municipalities. This may indicate that in municipalities with small establishments there is a greater tendency to the informality.

Caxias do Sul is the city with the largest number of jobs created in tourism activities exceeding 6,000 jobs in 2012. Therefore, this city may be considered the main center of tourism in the region and the destination inducer of tourism development for other municipalities. However, it is also important to highlight that the cities of **Bento Gonçalves, Gramado and Canela** are also tourism destinations in the region, due to their number of jobs and establishments in this LPA.

Chart 17 – Balance between the number of admissions and dismissals by activity in Uva e Vinho Region – 2007-2012



Source: Ministério do Trabalho e Emprego. Cadastro geral de empregados e desempregados (CAGED)

Note: Data was not available before 2007.

Analyzing data from CAGED (Chart 17), we observed positive balances of jobs during all the analyzed period, especially in the restaurant activity. It was noted a growth of



number of people with formal labor contracts and an increase in the number of dismissals in smaller proportions, which generated positive balances for the period. This reveals the **increase in formalization of tourist activity** in the Uva and Vinho Region, where there is minor impacts of seasonality.

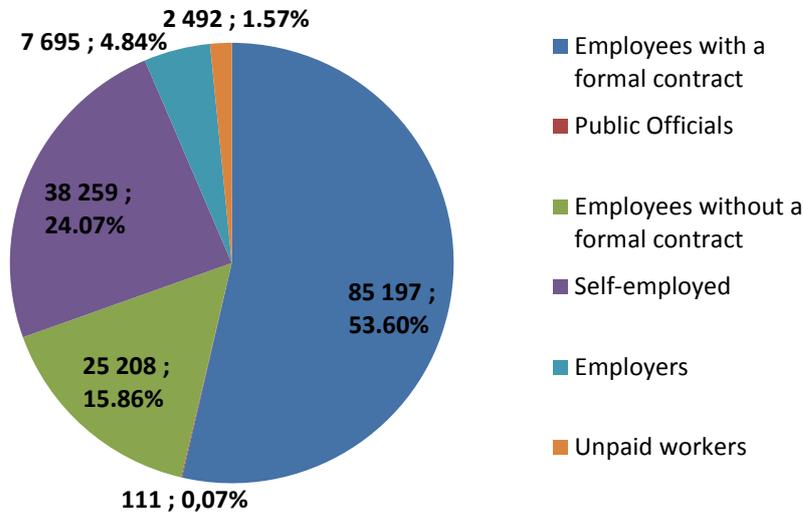
These data reveal that when Local Productive Arrangements incentive a Region to develop the tourism to reduce the seasonality, it is possible we to create more jobs with formal labor contracts.

We also found that the positive balances of admissions and dismissals in Uva e Vinho LPA were much higher than in Alagoas. This highest level of formalization in Uva e Vinho LPA is consistent with the socioeconomic context of the two states and with data about employment from Population Census in 2010 (IBGE).

Analyzing IBGE data, we observed that there is a greater formalization of employment in Restaurants and Accommodation Activities in Rio Grande do Sul state than in the Alagoas state: 28% of employers without a formal contract in Alagoas against 16% in Rio Grande do Sul.

The 2010 Population Census also revealed that most of the workers occupied in these activities have formal employment contracts. Over 50% of workers have a formal contract, followed by 24%, which are self-employed and 16% of workers without a formal contract, as shown in Chart 18.

Chart 18 - People 10 years or older, employed during the reference week in Restaurants and Accommodation Activities – Rio Grande do Sul – 2010



Source: IBGE. Censo Demográfico (2010).

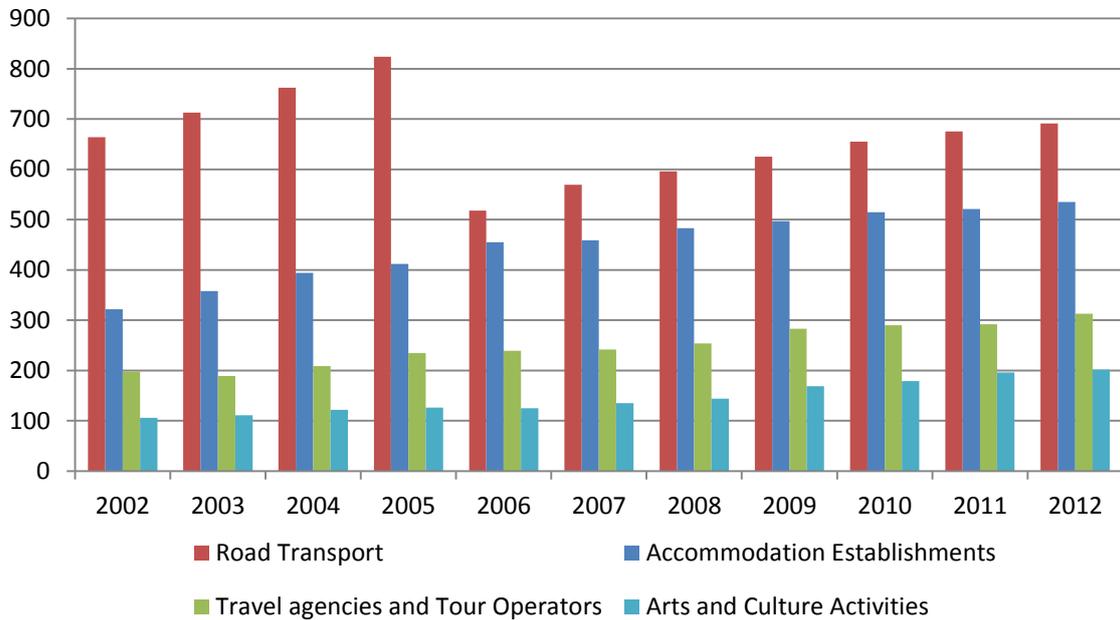
Thus, while formalization is one of the big challenges of Alagoas LPAs, in Rio Grande do Sul this may not be a priority action, since it is not more a local problem so evident in the activity.

Another important point is the representation of the self-employed in both states, which corresponds to 28% of total employment in Alagoas and 25% in Rio Grande do Sul. Thus, we noticed that, in both states, the tourism activity is characterized by the action of individual entrepreneurs.

Regarding the number of establishments by activity, Chart 19 shows that Road Transport stands out as an activity with larger number of companies, excluding Restaurants establishments. This is also justified by the large number of municipalities in **Uva e Vinho LPA** and due to the proximity of the state with other countries, such as Uruguay and Argentina.



Chart 19 – Number of Establishments in Uva e Vinho Region by activity – 2002-2012



Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)

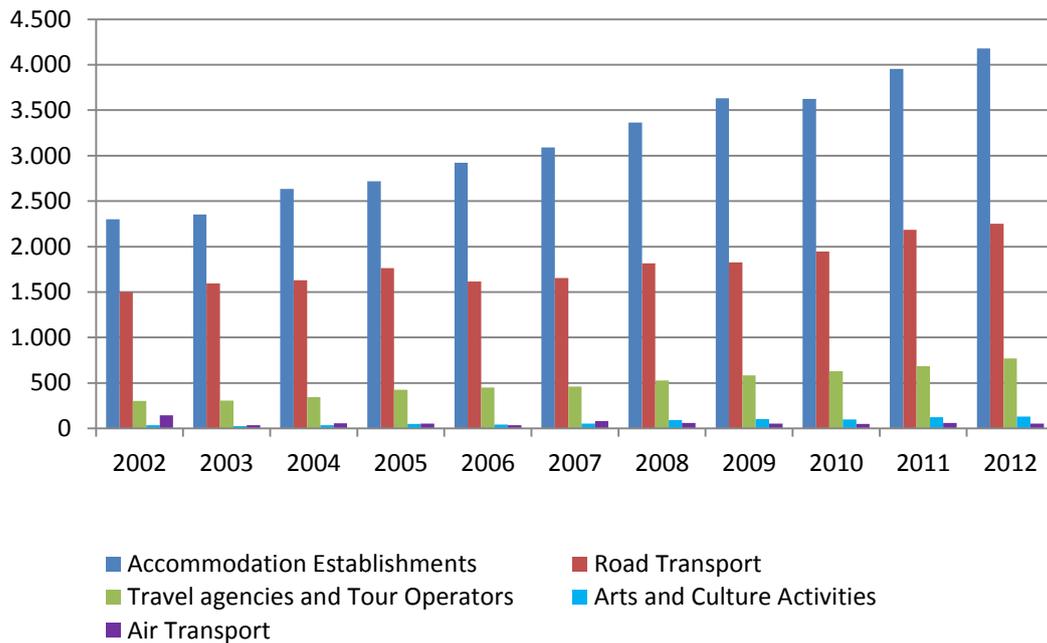
Data from the Statistical Yearbook of the Ministry of Tourism shows that in the year 2012 came to Rio Grande do Sul 656,927 international tourists by land, which represents 81% of total international tourist arrivals to this state. These numbers demonstrate the importance of the road transport in Rio Grande do Sul and explains the large representation of the road transport in the Uva e Vinho LPA.

The activity of restaurants and other food services is not represented in the chart because the numbers were very discrepant from the others activities. Thus, we chose to analyze the data separately. In 2005, the number of establishments in this activity was around 1,300, because of the change of classification. This number was 3,927 in 2006, and it achieved 4,116 in 2009. The last year's data revealed 3,959 establishments. Once again, this activity stands out for the high number of establishments. However, it is important to remember that, by tourism definition, some Road Transport Establishments are not classified as tourism activity.

Finally it is worth mentioning that the activities of Travel Agencies and Tour Operators and activities related to art and culture had greater representation in the total number of establishments in Rio Grande do Sul than those observed in Alagoas LPAs.

The segment of Cultural Tourism has greater representation in this state due to the characteristics of the local attractions and the historic appeal of the Region. It also important to highlight that this activity is concentrated mainly in the cities of Caxias do Sul, Bento Gonçalves, Gramado and Canela, while many of the other cities did not present large amount of establishments in this activity.

Chart 20 – Number of Jobs in Uva e Vinho Region by activity – 2002-2012



Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)

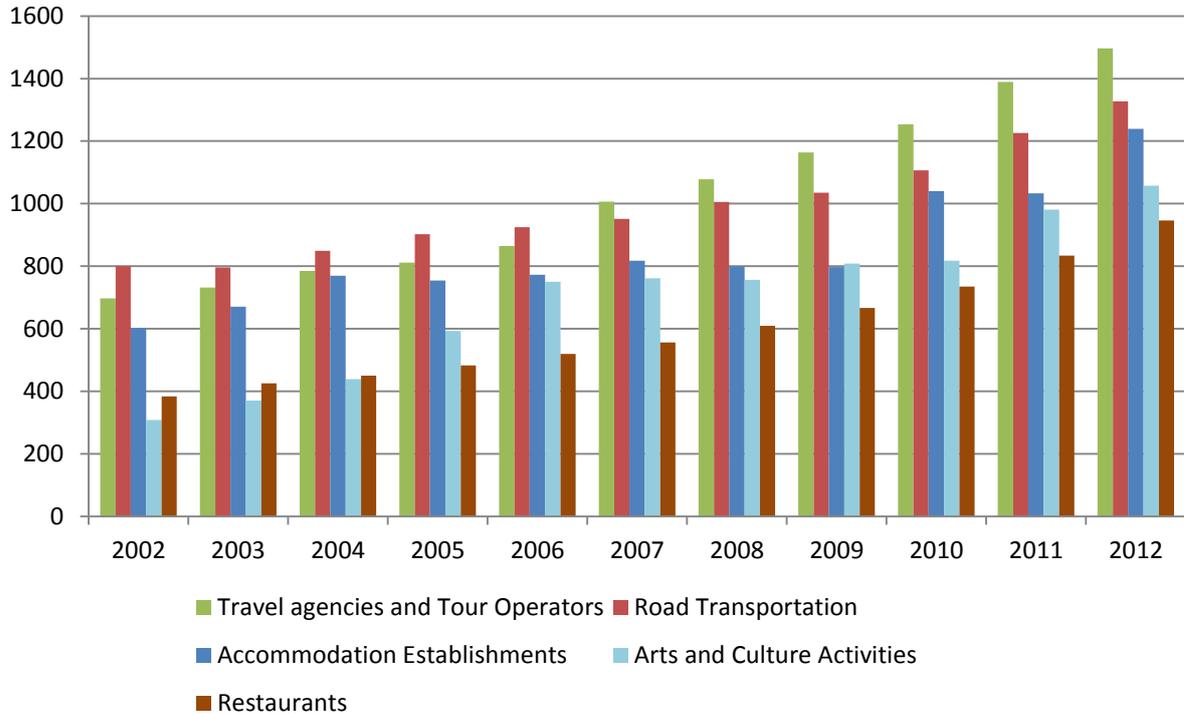
Despite the great number of establishments in Cultural Activities, it seems that the number of jobs is not as representative. Furthermore, it is smaller than the number of establishments. This can be justified by the informality of the activity and great number of individual entrepreneurs and artisans.

Moreover, the most representative activity in terms of job creation (excluding restaurants) is Accommodation Establishments followed by the Road Transport, even though the number of road transport establishments presents greater number. This fact shows the large capacity to generate jobs of the tourism industry.

The activity of Restaurants had the largest number of jobs created, although not all are related to tourism. A comparison between the years investigated reveals growth in this segment during the period of analysis. Since 2006, a year after the change in CNAE

code, there was an increase in the number of formal jobs generated by the activity from 5,834 for 8,589 in 2012.

Chart 21 – Average Remuneration in Uva e Vinho LPA by activity – 2002-2012



Source: Ministério do Trabalho e Emprego. Relação Anual das Informações Sociais. (RAIS)

Finally, the average remuneration of Travel Agencies and Tour Operators is the higher in the region, comparing to the other tourism activities, due to the need of skilled labor. Besides, this activity was the one which presented highest growth in the last 10 years surpassing road transport.

The activities that showed lower average wages were restaurants and cultural activities. Restaurants because it requires a low skilled labor, and also because of the variety of food establishments included in this class activity.

In the case of cultural activities, the low average earnings can be explained by the characteristics of the activity which is composed by a large share of individual entrepreneurs, as we observed in jobs data analysis. According to the Brazilian Population Census (IBGE, 2010), in Rio Grande do Sul about 36% of total workers in this activity were self-employed.



In general, we observe that there are no large variation in average income between Uva e Vinho LPA and Lagoas e Mares do Sul, with exception of road transport that presented higher average pay in Uva e Vinho Region. This can be explained by the greater representation of this activity in Rio Grande do Sul.

On the other hand, we found that the average income in Costa dos Corais LPA was lower than in other LPAs, because that Region is still in an earlier stage of tourism development.

6. Conclusions

The analysis of the indicators for measuring regional policy developments showed growth in all the Local Production Arrangements studied. We noted that this growth occurred more significantly, that is, with higher growth rates in the **Costa dos Corais LPA**, in Alagoas State, which was less developed in terms of tourism.

In the case of **Uva e Vinho LPA**, in Rio Grande do Sul State, because it has a more consolidated policy, since the 1990s, the growth rate of establishments was less intense. In turn, the number of jobs maintained growth rates at higher levels, which shows that this Region continues to develop the tourism activity.

This situation also occurred in **Lagoas e Mares do Sul LPA**, in Alagoas State. However for a different reason: this region includes the capital of the state (Maceio), which is responsible for the majority of jobs and establishments in the region (more than 90%). This city is the main gateway for tourists of the state, because of the presence of the airport and because it concentrates many business activities. Besides, tourism activities in this region are not so recent, as in Costa dos Corais LPA.

We also observed that in all three analyzed LPAS growth does not occur uniformly among municipalities. Generally, in Alagoas State, one municipality stands out as inducer of tourism development in each Region, as is the case of **Maragogi in Costa dos Corais** and **Maceio in Lagoas e Mares do Sul**. Therefore, the development of tourism in the surrounding municipalities should be the focus of the action of these LPAs policies, in order to distribute better the benefits of the tourism and avoid saturation of



the main destinations. This can be achieved by developing basic infrastructure (such as roads) as well as promoting the attractions of the surrounding municipalities.

In Rio Grande do Sul State, because its more consolidated policy and due to the higher number of cities in the LPA, it is possible to identify more than one municipality with significant tourism activity. This is the case of Caxias do Sul, Bento Gonçalves, Gramado and Canela.

Thus, tourism activities are more dispersed among cities in this more consolidated LPA. This can be a result of regional development policies and the inductive effect of tourism development.

On the average income in tourism activities, **Uva e Vinho** and **Lagoas e Mares do Sul** LPA showed higher average incomes than **Costa dos Corais** due to the different stage of regional development policies.

In all Regions, there was an increase of the average wage, which generally follows/reflects the increase of the minimum wage. However, the average income of workers in tourist activities is still considered low. Thus, the LPAs programs should focus on increasing the income of the average worker, for example, by promoting training programs for development of a more specialized workforce and improving the formality.

Besides, we may conclude that the largest impact of regional development policies occurs mainly in the initial phase of the program and in municipalities where the activity is incipient, as is the case of the LPA of Costa dos Corais. Therefore, for less developed regions with tourism potential, the implementation of a LPA policy is an alternative for generating income and jobs.

In LPAs more consolidated, as is the case of Rio Grande do Sul, despite the lower growth rate in number of establishments, the number of jobs continues to show significant growth rate, even 20 years after starting the implementation of LPA Program. This is related to the formalization of employment in these regions. Therefore, these policies have effects on the generation of jobs and income in the short and long term.



Finally, it is worth noting that the long-term results obtained in LPA of Rio Grande do Sul were from a local initiative development. In the case of Alagoas, LPAs were developed with the intervention of the federal and state governments.

In the later stages of development of LPAs, it is necessary to ensure the reduction of such dependence of government agencies in order to guarantee the continuity of such programs. Therefore, those regions have the challenge in the coming years to achieve autonomy in local management.



7. References

Becattini, G. 1991. Italian Industrial Districts: Problems and Perspectives. *International Studies of Management & Organization*, vol.21, 83-90.

Bell, Geoffrey G. 2005. Clusters, networks, and firm innovativeness. *Strategic Management Journal*, vol. 26, 287–295.

Brusco, S. 1990. The idea of the industrial district: its genesis. In: F. Pyke, G. Becattini e W. Sengenberger (eds.), *Industrial Districts and Inter-firm Cooperation in Italy*. Geneva: International Institute for Labour Studies, ILO.

Delgado, Mercedes; Porter, Michael Eugene; Stern, Scott. 2011. Clusters, Convergence and Economic Performance. Institute for Strategy and Competitiveness.

Gulati, Ranjay. 1999. Network location and learning: the influence of network resources and firm capabilities on alliance formation. *Strategic Management Journal*, 20: 397-420.

Hakanson, Lars. 2005. Epistemic Communities and Cluster Dynamics: On the Role of Knowledge in Industrial Districts. *Industry & Innovation*, vol 12, 433 – 463.

Instituto Brasileiro de Geografia e Estatística (IBGE). 2009. Pesquisa Nacional por Amostra de Domicílios: Síntese de Indicadores. Available from: <http://www.ibge.gov.br/home/estatistica/populacao/trabalhoerendimento/pnad2009/pnad_sintese_2009.pdf> [10 October 2013]

Instituto Brasileiro de Geografia e Estatística (IBGE). 2010. Contas Regionais do Brasil. Available from: <ftp://ftp.ibge.gov.br/Contas_Regionais/2010/pdf/tab01.pdf>. [7 October 2013]

Instituto Brasileiro de Geografia e Estatística (IBGE). 2010. Produto Interno Bruto dos Municípios 2010. Available from: <<ftp://ftp.ibge.gov.br/pibmunicipios/2010/pdf>>. [17 October 2013]

Instituto Brasileiro de Geografia e Estatística (IBGE). 2010. Censo Demográfico 2010: Trabalho e Rendimento. Available from: <http://www.ibge.gov.br/home/estatistica/populacao/censo2010/trabalho_e_rendimento/default_mu_xls.shtm> [15 October 2013]

Instituto de Pesquisa Econômica Aplicada (IPEA). 2013. Índice de Desenvolvimento Humano Municipal Brasileiro. Atlas do Desenvolvimento Humano Brasil. Available from: <<http://atlasbrasil.org.br/2013/download/>> [4 October 2013]

Krugman, Paul. 1995. *Development, geography, and economic theory*. Cambridge, The MIT Press.

Marshall, Alfred. 1890. *Principles of Economics*. London: Macmillan and Co Ltd.

Ministério do Desenvolvimento da Indústria e do Comércio Exterior. 2005. O levantamento de APLs. Available from:



<<http://www.mdic.gov.br/sitio/interna/interna.php?area=2&menu=3101>> [1 November 2013]

Ministério do Desenvolvimento da Indústria e do Comércio Exterior. Grupo de Trabalho Permanente para Arranjos Produtivos Locais – GTP. Available from: <<http://www.mdic.gov.br/sitio/interna/interna.php?area=2&menu=2985#gtpapl>> [25 October 2013]

Ministério do Trabalho e Emprego. Cadastro geral de empregados e desempregados. Available from: <http://www3.mte.gov.br/pdet/adesao/solicit_acesso.asp> [01 October 2013]

Ministério do Trabalho e Emprego. Relação anual de Informações sociais – RAIS. Available from: <http://www3.mte.gov.br/pdet/adesao/solicit_acesso.asp> [01 October 2013]

Ministério do Turismo. 2013. Anuário Estatístico de Turismo. Available from: <http://www.dadosefatos.turismo.gov.br/export/sites/default/dadosefatos/anuario/downloads/anuario/Anuario_Estatistico_de_Turismo_-_2013_-_Ano_base_2012_Versxo_Set2013.pdf> [5 November 2013]

Paulus, Beatriz. A Experiência da Atuaserra no Desenvolvimento Turístico da Região Uva e Vinho (Serra Gaúcha). Available from: <<http://www.serragaucha.com/pt/paginas/historico-da-regiao-uva-e-vinho/>> [16 October 2013].

Porter, Michael Eugene. 1998. Clusters and the new economics of competition. Harvard Business Review, vol. 76, 77-90.

Redesist. Relatório de Pesquisa 1- Os Arranjos Produtivos Locais no Rio Grande Do Sul: Mapeamento, Metodologia de Identificação e Critérios de Seleção para Políticas de Apoio. Available from: <http://www.bndes.gov.br/SiteBNDES/bndes/bndes_pt/Galerias/Arquivos/empresa/pesquisa/Mapeamento_RS.pdf> [04 October 2013].

Santos, Gustavo Antônio Galvão dos; Diniz, Eduardo José; Barbosa, Eduardo Kaplan. 2004. Aglomerações, Arranjos Produtivos Locais e Vantagens Competitivas Locacionais. Revista do BNDES, vol. 11, nº. 22, 151-179.

Schiavetto, Fernando; Alves, Carlos Alberto. A identificação dos arranjos produtivos locais: uma análise sobre sua constituição no contexto regional e nacional. Revista Eletrônica de Administração, vol 13, nº14.

Serviço Brasileiro de Apoio à Micro e Pequenas empresas (SEBRAE). O que é um APL? Available from: <<http://www.mundosebrae.com.br/2009/09/o-que-e-um-apl/>> [3 October 2013]