

Growth and challenges for the city of Toledo– Brazil: recent productive restructuring and opinions of economic agents about the future of the city

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- ▶ **The main objective is...**
 - to show more details about the economic changes of Toledo city highlighting the employment qualification structure and their contribution to the productive restructuration, and also to show some opinions from the economic agents about the future of the regional development.



► Why?

- Great development due to consolidated productive chains with several multiplier effects on the local environment.
- A great performance for showing an interactive space that includes a productive chain and a different industrial growth that aren't associated.

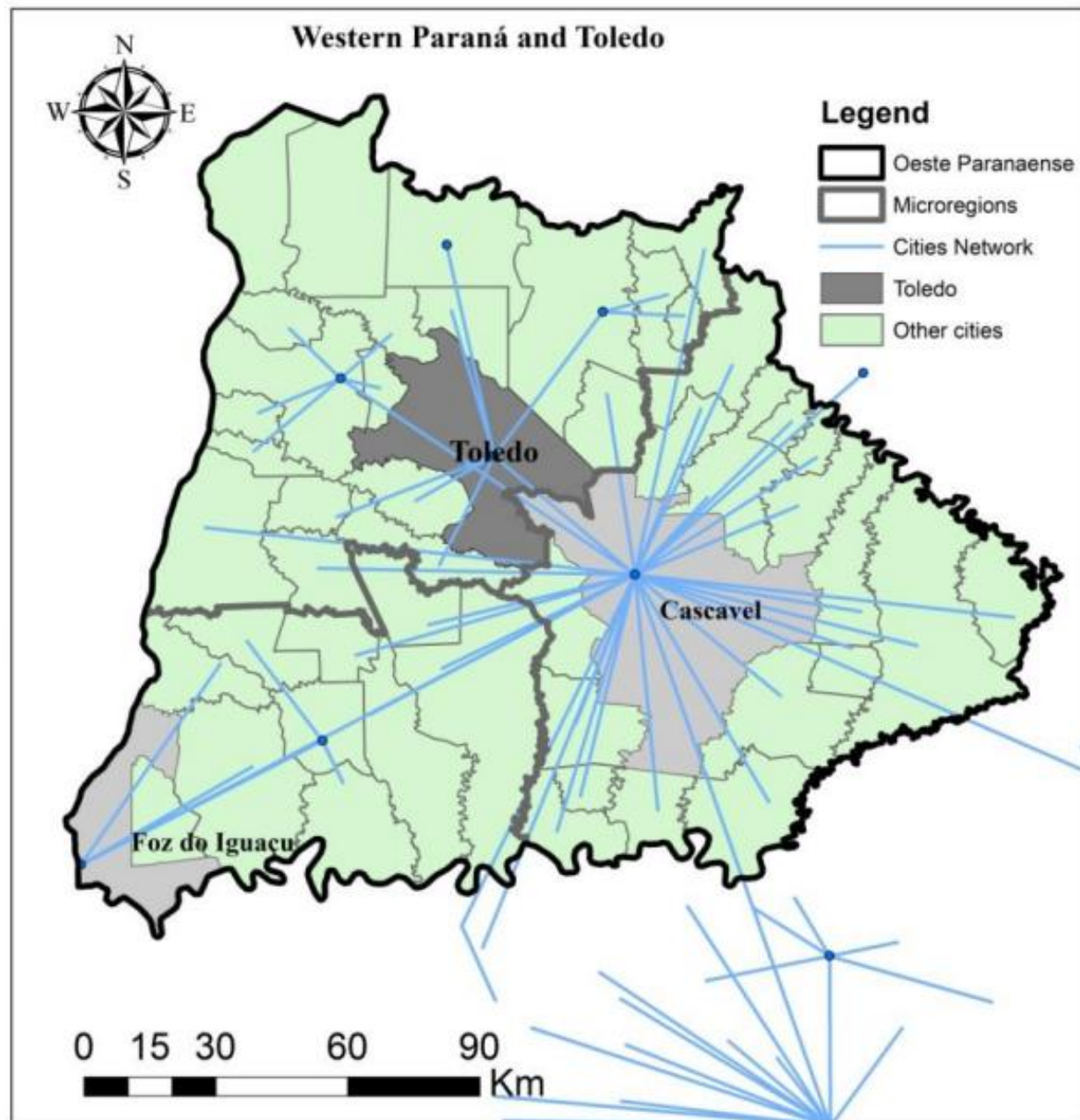
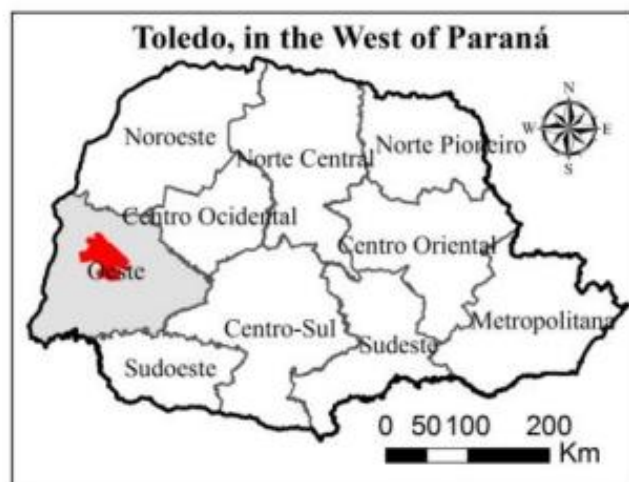
► And Toledo city?

- The total population:

Year	Total	Urban	Rural
1970	68,885	22%	78%
2010	119,313	91%	9%

- This population growth was accompanied by a change in the productive structure:
 - The economy of Toledo, traditionally linked to agriculture, has diversified and excelled in the high technology and knowledge production, as the production of pharmaceuticals that demands a different profile of labour, with more qualification.

Figure 1 – Location of Toledo in Brazil and in Paraná State



Source: Search Results.



Methodology

► Variable:

- Employees: Annual Report of Social Information (RAIS) from the Ministry of Labour and Employment (MTE).
- Microdata from the IBGE censuses of 2000 and 2010.
- State Database (BDEweb) of Paraná Institute of Economic and Social Development (IPARDES)

Theory Basis



• Before 1970

- Traditional theories
- Perroux, North, Myrdal, Hirschman.

• After 1970:

- Industrial districts
- Third Italy

1980

- Innovative milieus
- Regional innovation systems
- *Clusters*

1990

- *Clusters*
- Technology parks
- New industrial spaces

2000

- Technological industrial spaces more the whole dynamic that supports innovation: company networks, universities, interconnection with services, marketing, communications networks.

Main authors:

Méndez (1997), Méndez & Caravaca (1999), Marques da Costa (2000), Moulaert & Sekia (2003), Crevoisier (2003), Camagni & Capello (2012), and Pike, Rodríguez-Pose, & Tomaney (2006)



Socioeconomy

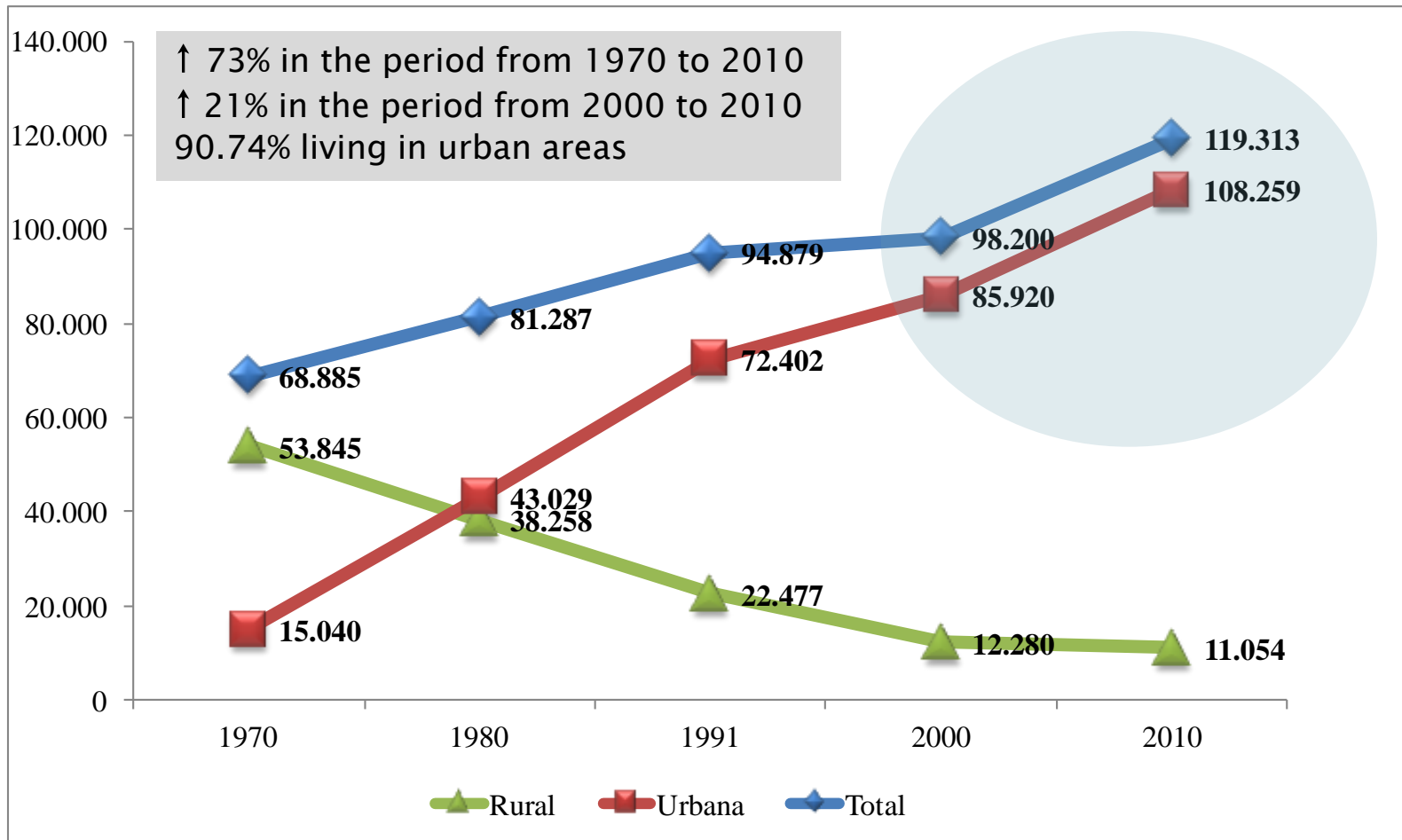


Chart 1 – Population, urban and rural total in the city of Toledo – 1970/2010

Productive Structure

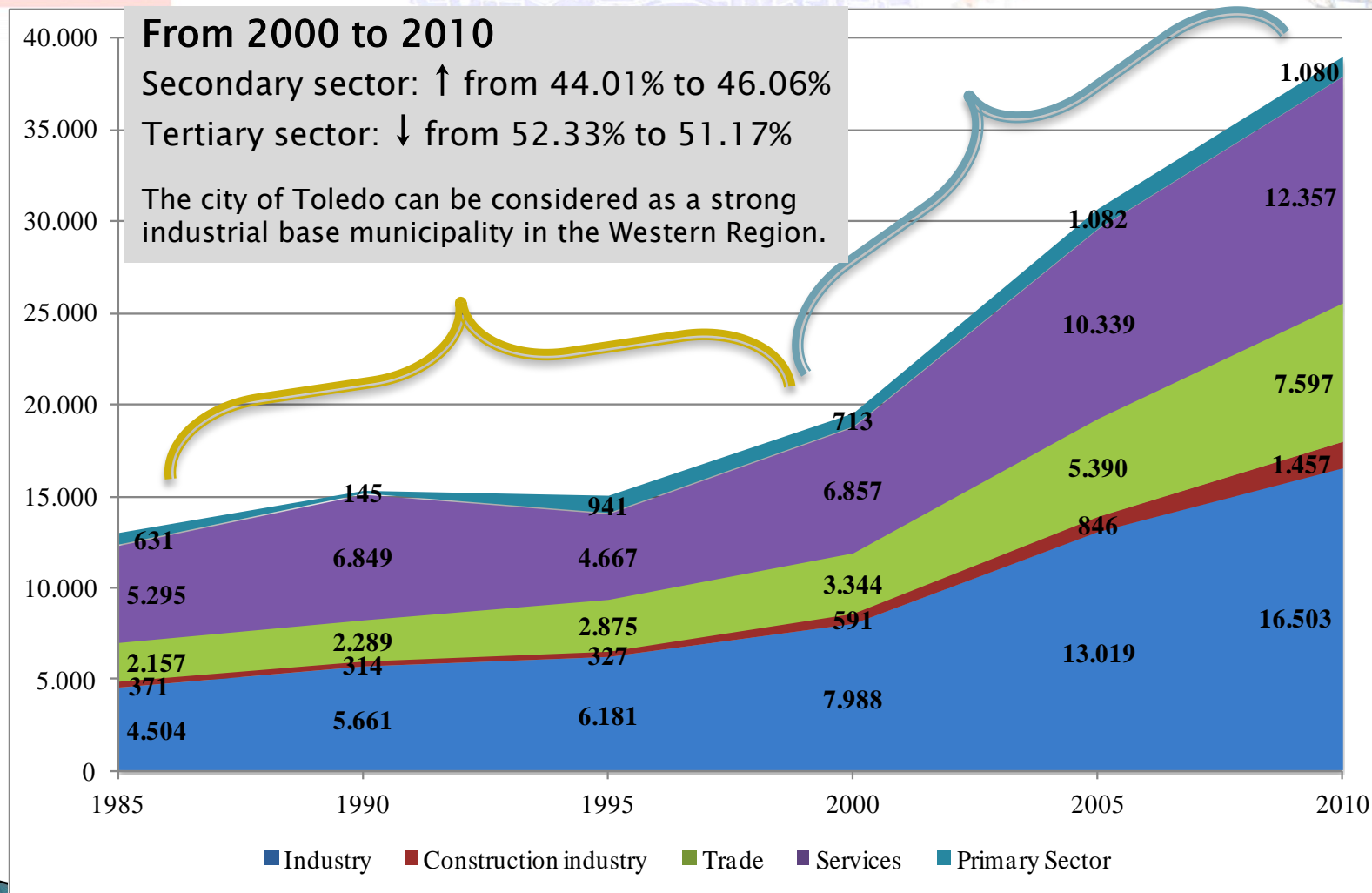


Chart 2 – Employees by sectors of the city of Toledo – 1985/2010

Table 2 - Number of employees, firms and LQ, by activities of Toledo - 2000/2010

CNAE 95 Group	LQ 2000	LQ 2010	Employees 2000	Employees 2010	% in total emp. 2000	% in total emp. 2010
PRIMARY SECTOR	0.68	0.72	713	1,081	3.66%	2.77%
Mining industries	0.06	0.58	3	56	0.02%	0.14%
Construction industry	0.78	0.76	591	1,457	3.03%	3.74%
High technology industries	<u>2.39</u>	<u>8.73</u>	192	2,207	0.98%	5.66%
Manufacture of pharmaceutical products	<u>8.87</u>	<u>30.34</u>	158	2,116	0.81%	5.43%
Manufacture of reception apparatus for radio and television reproduction, recording or amplification of sound and video	<u>9.68</u>	<u>6.97</u>	34	91	0.17%	0.23%
Medium-high technology	0.43	0.43	300	763	1.54%	1.96%
Manufacture of tractors and machinery and equipment for agriculture, poultry	<u>3.12</u>	<u>1.67</u>	87	148	0.45%	0.38%
Manufacture of machinery and equipment for specific use	0.29	<u>2.77</u>	15	295	0.08%	0.76%
Medium-low technology industries	0.91	0.99	598	1,494	3.07%	3.83%
Manufacture of rubber products	0.55	<u>4.24</u>	19	280	0.10%	0.72%
Manufacture of metal structures and articles of heavy boiler	<u>1.79</u>	<u>2.17</u>	93	275	0.48%	0.71%
Low-tech industries	<u>2.54</u>	<u>2.16</u>	6,873	11,886	35.26%	30.48%
Slaughtering and preparation of meat and fish	<u>17.59</u>	<u>8.48</u>	4,628	8,004	23.74%	20.53%
Manufacture of wearing apparel	<u>1.12</u>	<u>1.02</u>	409	967	2.10%	2.48%
SECONDARY SECTOR	<u>1.67</u>	<u>1.58</u>	8,557	17,863	43.90%	45.81%

Source: Annual Report of Social Information (RAIS) from the Ministry of Labour and Employment (MTE).

The chart displays the percentage distribution of education levels for two professions. The Y-axis represents the percentage from 0% to 100%. The X-axis lists the professions: 'Slaughtering and preparation of meat and fish' and 'Manufacture of pharmaceutical products'. The legend identifies four education levels: 1 (blue), 2 (red), 3 (green), and 4 (purple).

Profession	1 - No formal education and elementary incomplete	2 - Complete elementary school and incomplete high school	3 - Complete high school and incomplete university graduation	4 - Complete university graduation
Slaughtering and preparation of meat and fish	34,31%	27,28%	33,38%	5,03%
Manufacture of pharmaceutical products	13,90%	16,55%	51,06%	17,55%

8,004	< occupied people >	2,116 - in 2010
8,748		3,940 - in 2013

Opinions from the economic agents

▶ 117 answers

- Primary: 2 (2%)
- Secondary: 19 (16%)
- Tertiary: 95 (82%);

▶ Date of the interviews:

- From July to August 2014

▶ How?

- A semi-structured questionnaire;
- Phone contacts to schedule interviews and also participation in trade association meetings to present research and give to entrepreneurs a printed copy for me to go get after in the company.



Chart 1 – Main Entrepreneurs' responses

What does explain the regional development?

- Good location,
- Agricultural Sector,
- New industries,
- Universities,
- Trade and industry association,
- Good municipal administration,
- The willpower of local and regional entrepreneurs,
- Among various other factors.

The challenges...



What missing to Toledo to assert itself in the regional, national and international context?

Infrastructures:

- The regional airport
- Duplication of highways,
- The railroad,
- Expansion and creation of industrial parks (technology parks)

Other demands:

- Improve the political representation of the municipality,
- Qualification of skilled labour,
- Investments in the sectors of health and safety,
- Wider dissemination of the city to attract investors,
- More incentive for small and medium entrepreneurs.

Conclusions


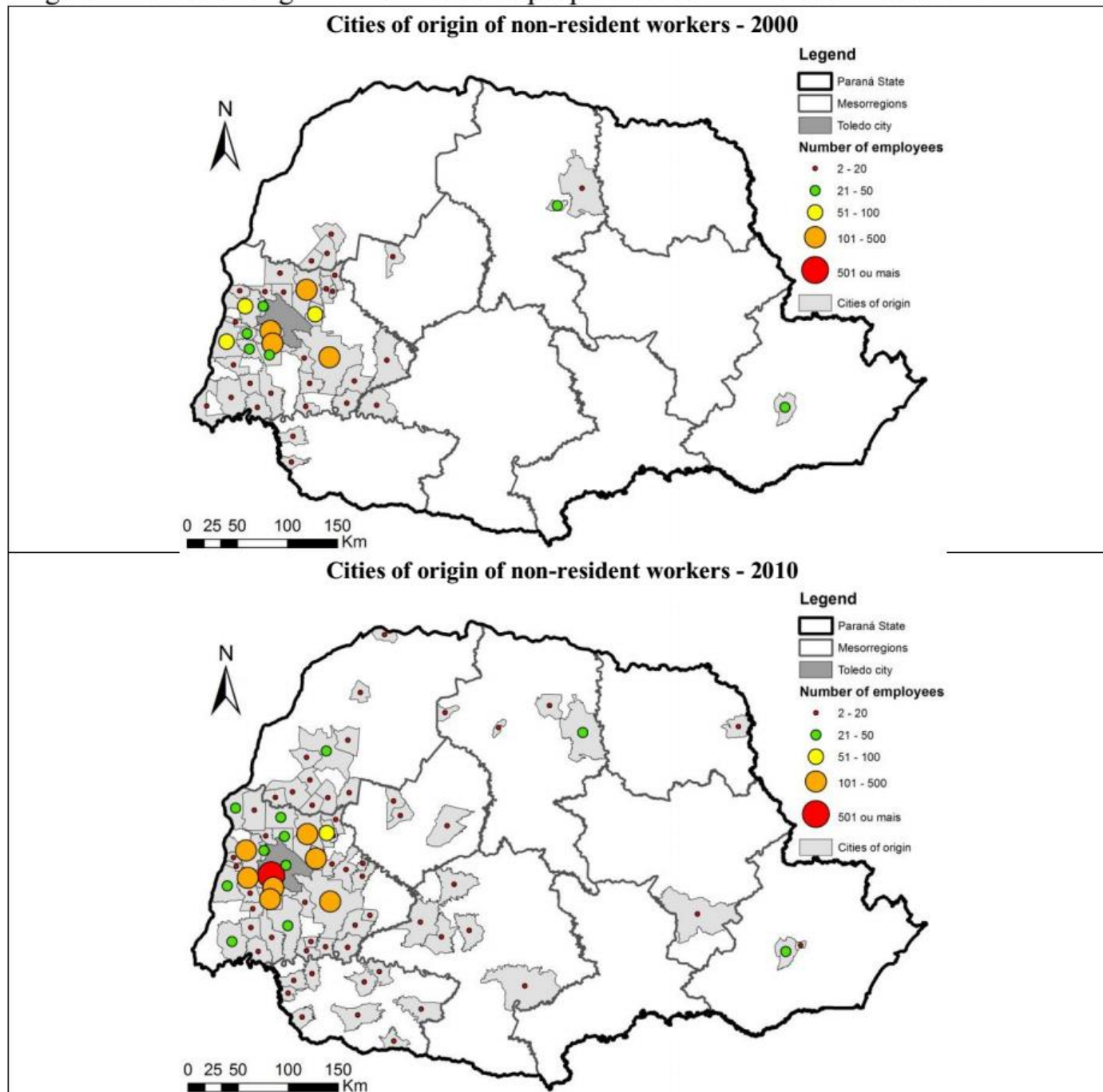
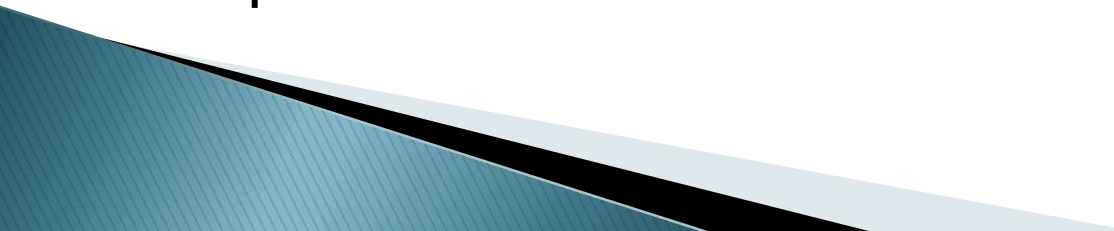
- ▶ The results showed the existence of productive restructuring signs in Toledo city in the first decade of the XXI century.
 - ▶ The consequences of this process are mainly the reorganization of the labor market region, with enlargement of the areas of exchange and influence, in other words, the municipality has been capturing labor of their surroundings to meet a growing demand of productive sectors.
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Figure 2 - Cities of origin for non-residents people that work in Toledo - 2000/2010



Source: Search results based on microdata from the IBGE censuses of 2000 and 2010

Conclusions

- ▶ But we can see in the answers that is missing more qualifications for the people and more basic infrastructure for the economic activities.
 - ▶ These demands are directly associated with the more important sectors of the city.
 - Moreover, to create a more intensive regional development and with an innovation link is very necessary that there are investments in these demands. The public politics must include these points in consideration.
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Conclusions

- ▶ On the other hand, we can't associate the performance of Toledo with a unique kind of development theory.
 - Instead, its performance is a mix of different kinds of theories:
 - a transition from a model to other, conciliating labour intensive specialities, to capital and innovative sectors:
 - we see a little of an industrial district and a little of a local production system that want to create a link with innovation.
 - But in both we can see Keynesian perspective where the productive activities must having forward and backward linkages in the industrial sector.

Conclusions

- ▶ The fact is that Toledo is more and more evolving to configure as a medium-sized city that attracts and segments the capital and with this expands its regional division of labour, with a territorial reorganization of the economy and people directly or indirectly involved in these sectors, consolidating a microregional dynamic system around Toledo, configuring a new territorial productive structure and a new industrial spaces of western Paraná State.

Thank you!

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