

Problem Set

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IPTU analysis

Suppose you are the data analyst for the city hall of São Paulo. The secretariat asked you to perform an exploratory analysis of the property tax (IPTU) in the city at the district level. Your boss wants to know, at least, which areas are the ones responsible for the largest share of revenues.

You are aware of, at least, the following databases:

- **Geosampa database**
 - Which has the IPTU data in "Dados Abertos - Cadastro - IPTU"
 - Which has the buildings location in "Dados Abertos - Sistema viário - Logradouro"
 - Also has many city-level shapefiles in "Dados Abertos - Sistema viário - Logradouro"
- **How the IPTU is calculated**

Your boss wants to know:

1. Which are the 3 areas deriving the highest and lowest tax revenues? How does it change when it comes to the property usage (commercial vs residential)?
2. How does this result change when analyzing the data at the neighborhood level?
3. How does it change when analyzing at street level? (CODL)

Map-making

Your boss hates tables, hence, **you must relay these information through maps**. Provide the maps for items 1 and 2. For item 3, provide a map which displays the mean IPTU by street.

Analysis

Your boss is very pleased with your map-making skill. However, this is not enough to keep you at your job by itself (and you like your well-paying job). Thus, you must also analyze the maps you just provided. **Write a 1 page (maximum) essay on the spatial distribution of IPTU earnings in the city of São Paulo.** You are encouraged to think outside the box and correlate your results with other data sources. **Pay attention to the language, be precise!**

PS.: You may write your essay in Portuguese