Group 15: Topic Presentation

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Overview

Public Transport

Idea

Using the OpenStreetMap API, we want to rank cities by how well connected to public transport they are.

- How do the type of public transport available and city size in Germany correlate?
- How do the type of public transport available and location of city (in Germany, worldwide) correlate?
- What effect does type of public transport available have on the CO_2 emmissions of a city?
- Do cities with higher availability of public transport (number of stops relative to city size) perform better economically?

Public Transport

- What effect does the availability of public transport (number of stops relative to city size) have on the CO_2 emmissions of a city?
- What is the correlation between availability of public transport (number of stops relative to city size) and location of the city?
- How do cities compare economically based on if they have a tram connection or not?
- Which type of public transport stop is most wheelchair accessible?
- Are the public transport stops closer to hospitals more wheelchair accessible?

Public Transport: Data Sources

- https://overpass-api.de/api/
- https://de.wikipedia.org/wiki/Liste_der_deutschen_Städte_nach_Bruttoinlandsprodukt
- https://cities.carbonmonitor.org/

Crime Rates

Idea

Using official data from the UK and Germany, we want to analyze the kinds of crimes and criminals

- How does the distribution of the type of crimes commited in the UK change over the span of a year? (consider last 10 years, take average)
- How does the type of crimes differ between regions with different population sizes? *Is this distribution similar between Germany and the UK?*
- What types of crimes are committed most commonly by teenagers and young adults? How has this trend developed in the last 10 years?
- 4. What types of crimes are committed most commonly against teenagers and young adults? How has this trend developed in the last 10 years?

Crime Rates

- How does deprivation affect the rate of specific types of crimes in different counties?
- Do terror attacks have an impact on overall crime rates?
- In the case of stop-and-searches in the UK, to which degree are these cases racially motivated?
- How do the number of thefts and fraud-adjacent crimes correlate to the development of the wages/salaries in UK?
- How do different age groups compare in committing theft vs violent crime vs idk?
- Which kind of crimes are committed farther away from police stations?

Crime Rates: Data Sources

- https://www.bka.de/EN/CurrentInformation/Statistics/ PoliceCrimeStatistics/policecrimestatistics_node.html
- https://data.police.uk/docs/
- https://de.wikipedia.org/wiki/Liste_von_Terroranschlägen_im_Vereinigten_Königreich
- https://deprivation.communities.gov.uk/download-all
- https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/ earningsandworkinghours/datasets/averageweeklyearnings

Football in Germany

Idea

We want to find correlations between the success of different German football teams and several factors such as weather or venues

- When during a match are scored the most goals (and for which team)?
- Is there a correlation between success of certain German teams and high rain?
- How is the correlation between total goal scored during a match and high rain?
- How many goals are scored on average before a player is transferred to another team?

Football in Germany

- What is the correlation between the success of a coach and their time at the team? What is the difference for teams?
- How do the ratings of a player change in the year after transferring to a different team?
- Which teams scored goals most often at home turf in 2024?
- During the span of the last ten years, when did Holstein Kiel score goals most often in their opponents city?
- Is there a correlation between venue size and the win rate of the away team?

Football in Germany: Data Sources

- https://www.api-football.com/documentation-v3
- https://www.openligadb.de/
- https://open-meteo.com/

The End