Data Visualization - Practice 1 (2024 ver)

Download the dataset and perform the tasks given below for the group exercise of week 1.

Cost of Living Index by Country

About this file

Source: www.numbeo.com/cost-of-living/cpi_explained.jsp

Understanding our Cost of Living Indexes

The cost of living indices provided on this website are relative to New York City (NYC), with a baseline index of 100% for NYC.

Here's a breakdown of each index and its meaning:

Cost of Living Index (Excl. Rent): This index indicates the relative prices of consumer goods like groceries, restaurants, transportation, and utilities. It excludes accommodation expenses such as rent or mortgage. For instance, a city with a Cost of Living Index of 120 is estimated to be 20% more expensive than New York City (excluding rent).

Rent Index: This index estimates the prices of renting apartments in a city compared to New York City. If the Rent Index is 80, it suggests that the average rental prices in that city are approximately 20% lower than those in New York City.

Cost of Living Plus Rent Index: This index estimates consumer goods prices, including rent, in comparison to New York City.

Groceries Index: This index provides an estimation of grocery prices in a city relative to New York City. Numbeo uses item weights from the "Markets" section to calculate this index for each city.

Restaurants Index: This index compares the prices of meals and drinks in restaurants and bars to those in NYC.

Local Purchasing Power: This index indicates the relative purchasing power in a given city based on the average net salary. A domestic purchasing power of 40 means that residents with an average salary can afford, on average, 60% less goods and services compared to residents of New York City with an average salary.

Task 1.

For the variables "Cost of Living Index", "Rent Index", "Groceries Index", "Restaurants Index", and "Local Purchasing Power". Draw scatterplots for all combinations of these variables which will be 10 plots in total.

Highlight (with difference point color or text annotation) the relative position of "South Korea" in the plots, and state what you have observed from those plots especially for living expense in "South Korea".

Task 2.

Choose one or more graphs from task 1 to support your statement and refine the graphs to highlight your message. You need to put proper graph label, x and y axis label, and tick label for clear explanation. This is the task to practice explanatory data visualization for effective data-story telling.

You might use some other techniques to improve your graphs and effective message delivery.