Final Assignment

Covered topics: Data Visualisation and Power BI

Assignment Instructions

The Data

The European Social Survey (ESS) is a large-scale survey of social attitudes and issues of people living within Europe. This dataset is from the 2016/17 round of the survey – it contains over 500 variables and surveyed more than 40,000 people.

In the Google Drive you will find an 'ESS data' folder which contains:

- A .csv file called 'variables'. This lists the full set of variables surveyed in the ESS.
- A .pdf file called "ESS Documentation". This contains the full documentation of the survey, including the full survey questions asked, the response scale that they were answered on (e.g., 1-5, 0-10), as well as the codes for any missing data (e.g., 55 = Not applicable, 66 = Refusal to Answer etc.).
- A .xlsx (Excel) file called "Climate Data Clean". This contains a partially cleaned version of the ESS data that is limited to just the Climate Change group of questions and has replaced missing value codes (e.g., 55, 66, 77 etc.) with NA.
- [Bonus] There is also the full ESS dataset in the file "ESS Round 8 Full Data". This contains the full, uncleaned ESS 2016/17 dataset. *We will not be using this file for the assignment, but it is here should you want to try building a dashboard on any of the other ESS topics.*

From the 'variables' file, you'll see that the survey is split into several groups of questions on different topics:

- Group Media and social trust
- Group Politics
- Group Subjective well-being, social exclusion, religion, national and ethnic identity
- Group Climate change
- Group Welfare attitudes
- Group Gender, Year of birth and Household grid
- Group Socio-demographics
- Group Human values

For the purpose of this assignment we will be working specifically with the Climate Change topic, the questions for which have been selected separately and are contained in the "Climate Data Clean" Excel file.

The Task

Imagine you're working at the European Institute for Social Policy. They're running an article on climate change and you've been tasked with producing a dashboard to examine European attitudes towards climate change during the 2016-17 period. The EISP would like your dashboard to both allow users to explore the available data on attitudes towards climate change, as well as inform users what some of the main insights from the data are. The Institute has given you creative freedom to design the dashboard so you do not necessarily need to showcase all of the available variables, but has suggested that your dashboard could try to highlight some of the below points:

- What was the general opinion of Europe on climate change?
- How worried were Europeans about climate change?
- What were European preferences towards different energy sources?
- How did these opinions differ between European countries?

Use Power BI to create a dashboard visualising the "Climate Data Clean" data that fulfils the requirements of the above brief. Your dashboard will be graded based on how well it satisfies each of the following criteria.

1. Adherence to Principles of Graphical Excellence and User Experience [40%]
    - Adherence to principles of graphical excellence, including chart junk, Gestalt principles, usage of pre-attentive attributes, and effective use of colour.
    - The extent to which your report effectively uses the features available within Power BI to provide a good user experience. This could be the use of bookmarks, or the use of dynamic titles, conditional formatting, field parameters or DAX in Power BI.
    - Importantly, your report does NOT need to use all of these features. The key here is the effective use of them, so the use of these features should add to the user experience and allow users to better explore and understand the data.

2. Use of Chart Choice and Data Cleaning [30%]
    - Appropriate use of chart choice to display your data
    - Appropriate attention to how data is stored in the data source, and whether any cleaning, filtering, or aggregation of data has been appropriately applied in your report to display accurate data

3. Adherence to the Brief [30%]
    - How well your report effectively answers the proposed brief and allows users to both explore the data and inform them of the main insights

When complete, send via email (victormrivasc@gmail.com) your .pbix file.

NOTE: Subject should be **Class 24 Final Assignment - *Name Surname***

Deadline: 25 Jan 23:59:59

Hints and Tips

- Double check the data that you're visualising!
- Remember the 3-30-300 rule!
- In Power BI, if you want to show multiple fields on the same bar chart, you might need to unpivot the data. Also don't forget to set geographic columns to an appropriate geographic role for use in map visuals (However, map charts are not always the best).
- Think about the direction that questions have been measured in - do higher scores mean low or high values, and what might be the best way to visualise these
- When you think you've finished your report, take a 30 minute (or more) break away from it before you submit. Take a look over your report with fresh eyes and critically evaluate whether it fulfils the above criteria (e.g., does it present the information clearly and using the principles of graphical excellence?)