**Economic Factors vs. Population Distribution and Human Welfare**

Exploring the relationship between features of national economic factors and population, and the effect that has on human welfare.

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**ABSTRACT**

The purpose of this study is to explore the different relationships that exist between aspects of a country’s economy. Some aspects of a country’s economy examined in this research are number of exports, GDP per capita, types of exports, and the like. Gini coefficient, Youth Gender Parity Index (YGPI), and literacy rate are all examples of features used to outline and define human welfare in countries based on economic factors. The relationships between economic factors and human welfare are then explored using models like k-prototype clustering, linear regression, Gaussian models, and others. Based on the findings of this research, some relationships are easier to find between things like population growth and GDP per capita, and more difficult to find between military spending and YGPI.

**KEYWORDS**

GDP per capita, literacy, inequality, gender parity, exports

1**Introduction**

A country’s economy can provide useful insights into other phenomena that make up a country’s general development. This can include wealth inequality, GDP per capita, and gender disparity, for example. These kinds of insights can reflect on the distribution of wealth and trajectory of a country’s GDP per capita growth, for example, which. Research into this subject is key for other reasons, as well.

The topic of research for this report is the global distribution of wealth, and what kinds of factors influence its behavior. Research into this subject is key for understanding and being able to explain, for example, economic disparities among different social groups (citation needed), and being able to identify patterns in these relationships and evaluate them could potentially lead to further research on how to mitigate these disparities. The extent of the world’s wealth inequality and what causes it is an issue that other experts have investigated. Based on results from other studies, there is substantial global economic inequality - the richest 10% of the world’s population owns 76% of global wealth, while the bottom 50% only own approximately 2% of total wealth1. Other research suggests that inequality makes environmental conservation efforts more difficult, and on top of that, environmental policies can even exacerbate these inequalities, leading to a negative feedback loop2. With these points in mind, it is necessary to try to understand what has caused such disparities to exist in the first place by attempting to identify and quantify patterns in data on wealth distribution globally.

1. citation: <https://wir2022.wid.world/executive-summary/#:~:text=The%20poorest%20half%20of%20the%20global%20population%20barely%20owns%20any,own%2076%25%20of%20all%20wealth>
2. citation: <https://thedocs.worldbank.org/en/doc/206293abe6ad06f4dc8c2fb541a3b93b-0330272022/original/Chancel2022WB.pdf>
3. Dkjfd.

Example format: xxxx.

2 Data

In this part, you should introduce your datasets.

2.1**Source of dataset**

Where did you download it? Is it a credible source? When were the datasets generated? How were the datasets generated by the creator? If you create the datasets, how did you generate it?

Example: xxxx

2.2**Characters of the datasets**

What’s the format and size of the datasets? What parameters/columns/rows/character and their units are included in this dataset. Use a table to explain this is recommended. Did you clean the data or convert any unit in the dataset? If so, what’s the formula/rule did you apply? Did you combine any datasets? If so, how do you combine them? Did you create any new category for analysis in the datasets? If so, what and how do you create?

3 Methodology

In this part, you should give an introduction of the methods/model. First, what’s the method/model. What’s the assumption of this method/model. What’s the advantage/disadvantage of this method/model. Why did you choose it. What Python module or function do you apply to apply this method/model. Any optional input/extra work did you adjust to make the results better. If you have multiple methods, feel free to use subsection 3.1, 3.2, 3.3, … to separate them.

3.1**Heading Level 2**

3.2**Heading Level 2**

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Example format: The updated template, user manuals, samples, and required fonts, all are available at the URL <https://www.acm.org/publications/proceedings-template>. It contains said information for all three versions of MS Word (Windows and 2 versions of Mac). There are also separate links to the user guide, which can be referred to by the user. This URL also contains some useful video links, which describe how to add the template, structure the paper, and generate the layout, in different clips. **Display Formula with Number**

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**Continuation part of Paragraph Text** The user must style this paragraph in **ParaContinue** style, which follows immediately after the **DisplayFormula** (numbered equation). The **DisplayFormula** style is applied only in case of a numbered equation. A numbered equation always has a number to its right. Insert paragraph text here. **Display Formula without Number**

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The **DisplayFormulaUnnum** style is applied only in case of an unnumbered equation. An unnumbered display equation never contains an equation number to its right, and this unique property distinguishes it from a numbered equation.



Figure 1: **Figure Caption and Image above the caption [In draft mode, Image will not appear on the screen]**

**Theorem/Proof/Lemma.** Insert text here for the enunciation or Math statement. Insert text here for the enunciation or Math statement. Insert text here for the enunciation or Math statement. Insert text here for the enunciation or Math statement. Insert text here for the enunciation or Math statement.

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4 Results

In this part, you need to select a reasonable way to deliver the result of your topic. For example, equation or numerical results, or visualization of your result. You also need to provide a clear explanation of all results and how to understand the results. If there exist any unexpected results, please explain why or possible cause of this special result. You can use subsection 4.1, 4.2, … to separate your results.

4.1**Heading Level 2**

Example format: In the below paragraph, it is explained how alt-txt value is placed in **MS Word 2010**. To add alternative text to a picture in Word 2010, follow these steps:

1. In a Word 2010 document, insert a picture.
2. Right click on the inserted picture and select the **Format Picture** option.
3. Select the **Alt Txt** option from the left-side panel options.
4. In the "Title:" and "Description:" text boxes, type the text you want to represent the picture, and then click "Close".

Below are steps to place alt-txt value in **MS Word 2013/2016**. To add alternative text to a picture in Word 2013/2016, follow these steps:

1. In a Word 2013/2016 document, insert a picture.
2. Right click on the inserted picture and select the **Format Picture** option.
3. In the settings at the right side of the window, click on the "Layout & Properties" icon (3rd option).
4. Expand **Alt Txt** option.
5. In the "Title:" and "Description:" text boxes, type the text you want to represent the picture, and then click "Close".

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5 Discussion

Every method/project has its shortage or weakness. Please discuss the unsatisfied results in your project. And discuss the feasible suggestions of future work to revise/improve your result.

6 Conclusion

In this part, you should summarize your project. What important results did you find for your topic and what’s the effect of this result on the real-world?

**ACKNOWLEDGMENTS**

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**REFERENCES**

Use the following ACM Reference format for your citation

FirstName Surname, FirstName Surname and FirstName Surname. 2018. Insert Your Title Here: Insert Subtitle Here. In *Proceedings of ACM Woodstock conference (WOODSTOCK’18). ACM, New York, NY, USA, 2 pages.* https://doi.org/10.1145/1234567890

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