GLBL 225 Measuring Poverty Rates in Malawi Based on Consumption

Take Home Assignment 2

Due: Friday, February 16

- You need to submit two files. A pdf file of the answers on canvas ***Gradescope*** and the code you used to get your answers in ***Assignments***. The answers might be short, but the rubric setting on Gradescope is easier for us to manage and provide feedback.
- The code needed for this assignment comes from Lecture code 8 and the lab session that week. If you want to use other coding syntax, you can, but this is not necessary.
- You can access the codes and a list of functions on the **Weekly Course page (top right).**
- You are allowed to work together, but everyone must submit their own code. Make comments on your code so that we understand what you are doing. If the codes are too similar, we will flag this and investigate.

Targeting Malawi's Poor

A new government program in Malawi provides a temporary income subsidy and work training to households that the government identified as poor. Using the Lecture 8 code (and what was discussed in lab that week), calculate:

1) The poverty rate in Malawi by region.
2) The poverty rate in Malawi by region and province.
3) Identify the top 5 districts in Malawi that would need the most transfers from the government (has the highest poverty rate).

Download all the datasets for the assignment here.

You need to modify the class code to create a better measure than what we did in class. The modification is the following:

i) Total consumption needs to be per capita consumption. Use the hhsize variable that is available in the data.

ii) You need multiple datasets, not just food consumption. Use data from "HH_MOD_G1", "HH_MOD_I1", "HH_MOD_I2", "HH_MOD_J", and "HH_MOD_K1". Five datasets in total. Pay attention to the unit of observation; is this measured for 3 months, a year, or something else. Use the household questionnaire pdf to understand your data, as well as viewing the data. You also need an additional dataset for household information: "hh_mod_filt_a."

iii) Merge all the data together to get a single dataset with total annual consumption (use the merge command multiple times). You will then need to rescale the units. For example, if something is measured weekly, multiply it by 52. Afterwards, add everything together.

iv) Lastly, generate a below poverty rate variable. Construct a 1-year poverty line (2.15 dollars a day or 656.7 Malawi Kwacha times the number of days in a year) and flag household below the poverty line.

v) You are now ready to answer the three above questions.