Code Academy- LEABY & GDP

WACK AS BLOG ABOUT $$$ AND LEABY BUGS

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INTRODUCTION

If you wanted to read about GDP and Life Expectancy Ages By Year for six different countries, you came to the right blog. Despite the limitations of Google Drive and Analysis below I'm sure you will have a good time.

Before you get too carried away you will need a little background information to help you in your journey.

GDP= gross domestic product, effectively how much wealth a country creates on an annual basis.

LEABY= Life Expectancy Age By Year, a guestimate of how many years somebody born on a given year will live to, if they don't get hit by a bus and as long as they get 5 servings of fruits and vegetables a day.

Research was supplied by Code Academy which took the data from the World Bank and the World Health Organization (see http://apps.who.int/gho/data/node.main.688 and https://data.worldbank.org/indicator/NY.GDP.MKTP.CD). Not much other research was conducted as the writer didn't want to overwhelm the reader with the additional factoids.

GRAPH 1: LIFE EXPECTANCY BY COUNTRY
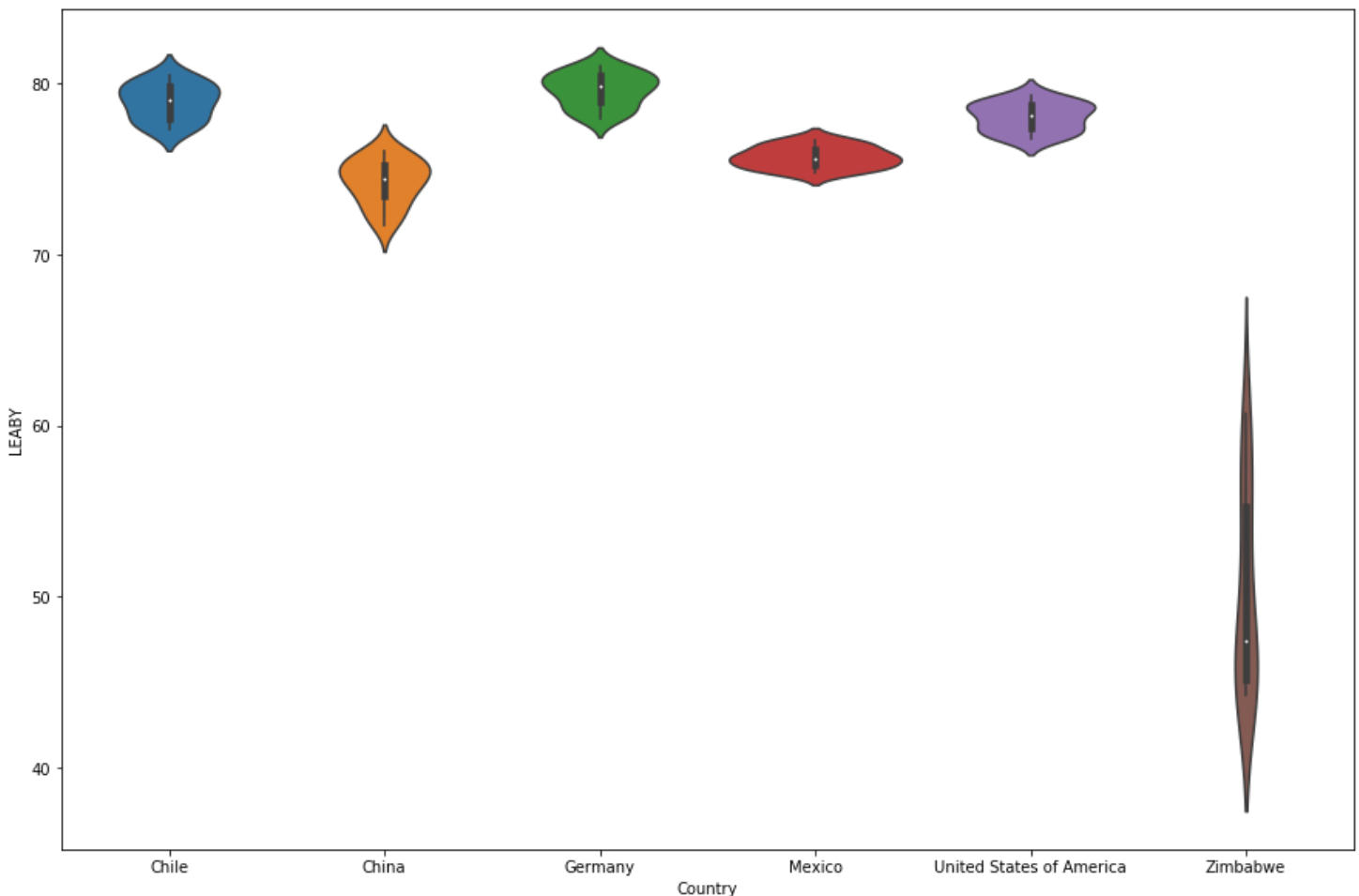
Graph 1 shows the LEABY for the last 15 years for six countries. 5 of the 6 countries show relatively stable LEABY for the last 15 years, denoted by tight distributions of LEABY values. The most stable of which is Mexico, whose LEABY graph resembles a normal population. Zimbabwe has the lowest LEABY values and also the widest spread. This represents the LEABY values is either changing in time or highly sporadic. Chile, Germany, and the United States have slightly bimodal distributions which could possible represent a stablized process that shifted during the 15 year span. China has a skewed distribution which suggests an shift in LEABY over the last 15 years.

GRAPH 2: LEABY VS GDP
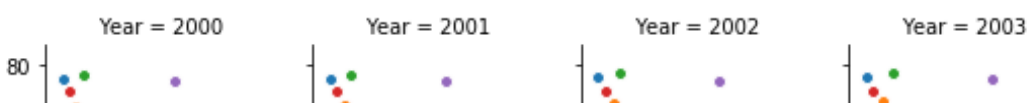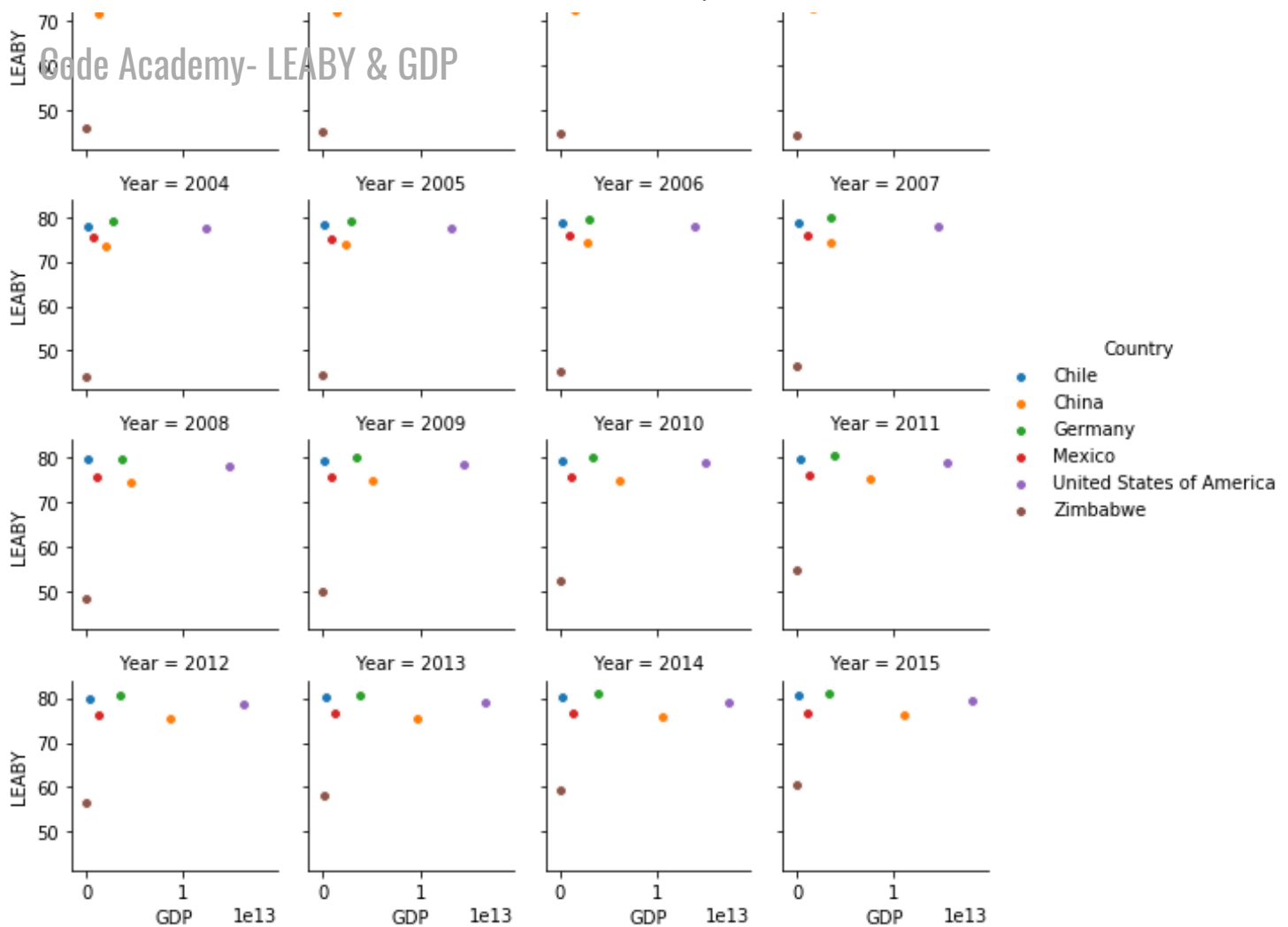
Graph 2 is very hard to read but we can help you with that, unless you actually can't read or deal with white color/contrast very well, happens to the best of us. I would change it but the Facet python command is pretty hard to edit. SNS documentation is not very helpful.

Important things to notice is the clustering of Chile, Mexico, and Germany in the upper left. Relative to their GDPs, they have high LEABY. USA and China high low LEABY relative to their GDP. Zimbabwe has both low GDP and low LEABY. It is also interesting to note the movers: China and Zimbabwe. China has seen a large growth in GDP but little change to LEABY, whereas Zimbabwe has seen little change to GDP but vast change to LEABY.

Important take aways are that GDP and LEABY do not seem to be directly correlated.
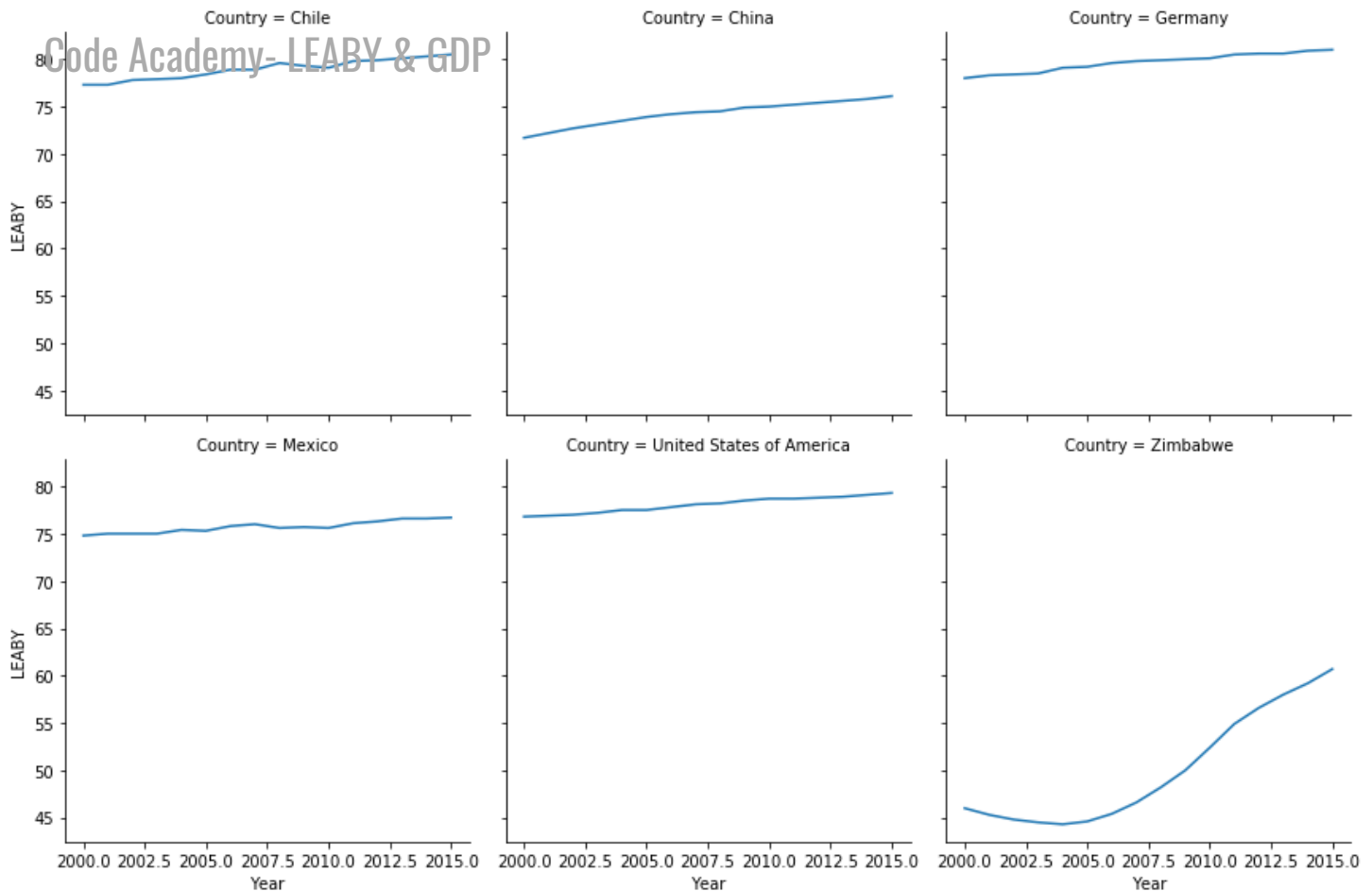
GRAPH 3: GDP BY COUNTRY
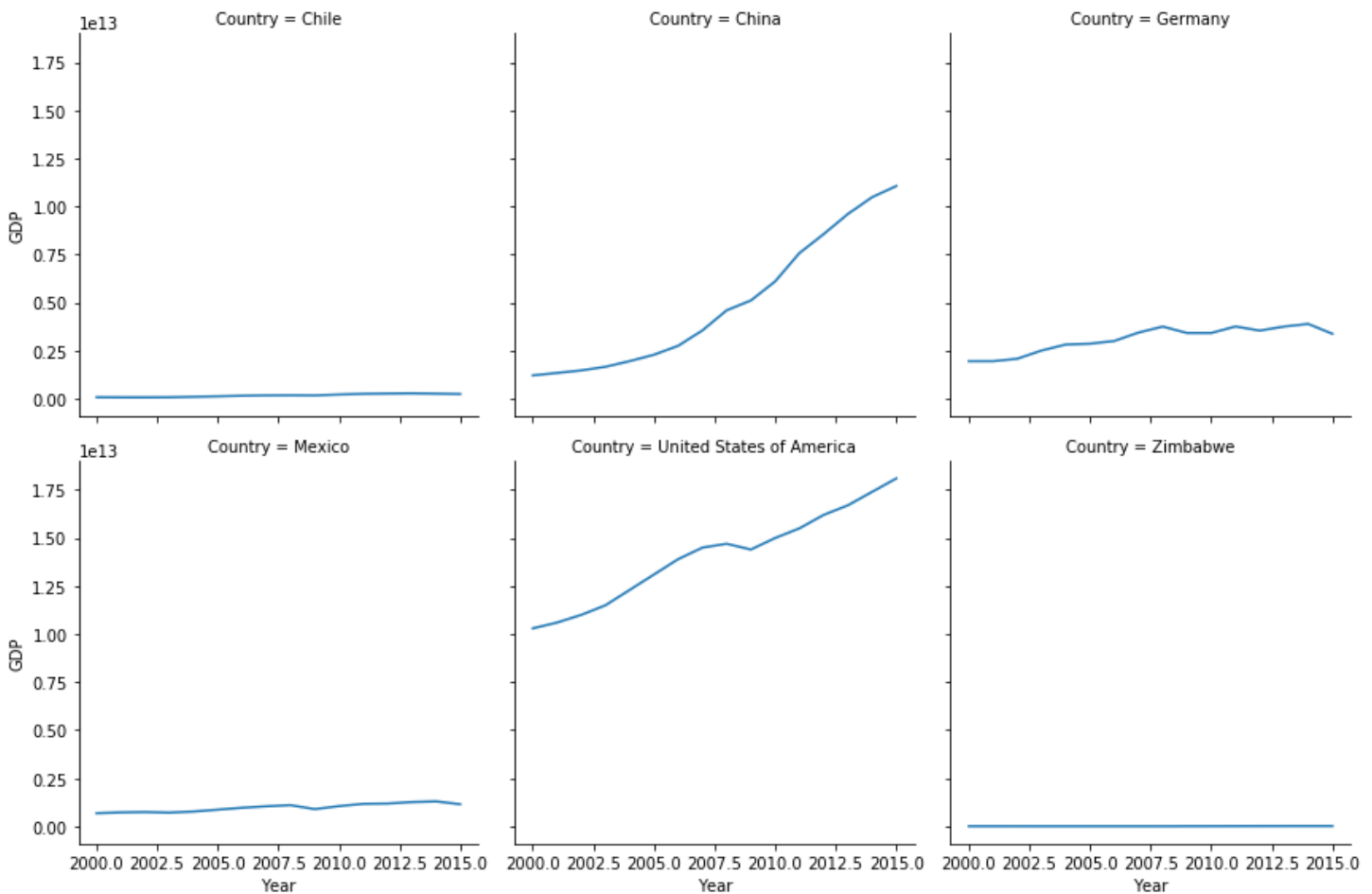
Graph 3 shows the change of GDP by country over the 15 year span. Most of the countries show minimal growth in GDP, whereas the USA and China show increasing growth. The USA shows strong growth till the great recession of 2008. China shows nearly exponential growth.

GRAPH 4: LEABY BY COUNTRY

Graph 4 hows the change of LEABY by country over the 15 year span. All the countries show stable, slow improvements to LEABY except Zimbabwe. Zimbabwe dips down slightly from 2002 to 2004, but rapidly increases from 2005 to 2015. Contradictory to Graph 1, most countries appear stable over time. The bimodal nature observed in Graph 1 may be due to a steady increase instead of rapidley shifted process. The wide distribution of Zimbabwe's LEABY is best described in Graph 4 which shows a dip in LEABY followed by an accelerated increase.

CONCLUSIONS

GDP and LEABY are not directly correlated. Countries with low GDPs have both High (Chile) and Low (Zimbabwe) LEABYs. Countries with high GDP do not have significantly higher LEABY than corresponding countries. Confounding variables may be the relative populations of countries. For example, Chile GDP is approximately 17 times smaller than the US but Chile's population is approximately 1/17th of the USA. Zimbabwe and Chile have similar population sizes but Zimbabwe's GDP is 1/10th of Chile.

Further research is required to completely characterize the factors which contribute to LEABY of a country. GDP has proven to be a poor indicator. Additional factors worthy of further research include GDP relative to population, distribution of wealth, and relative spending on health services.