Life Expectancy vs. GDP

Jingyuan (Carol) Zhu

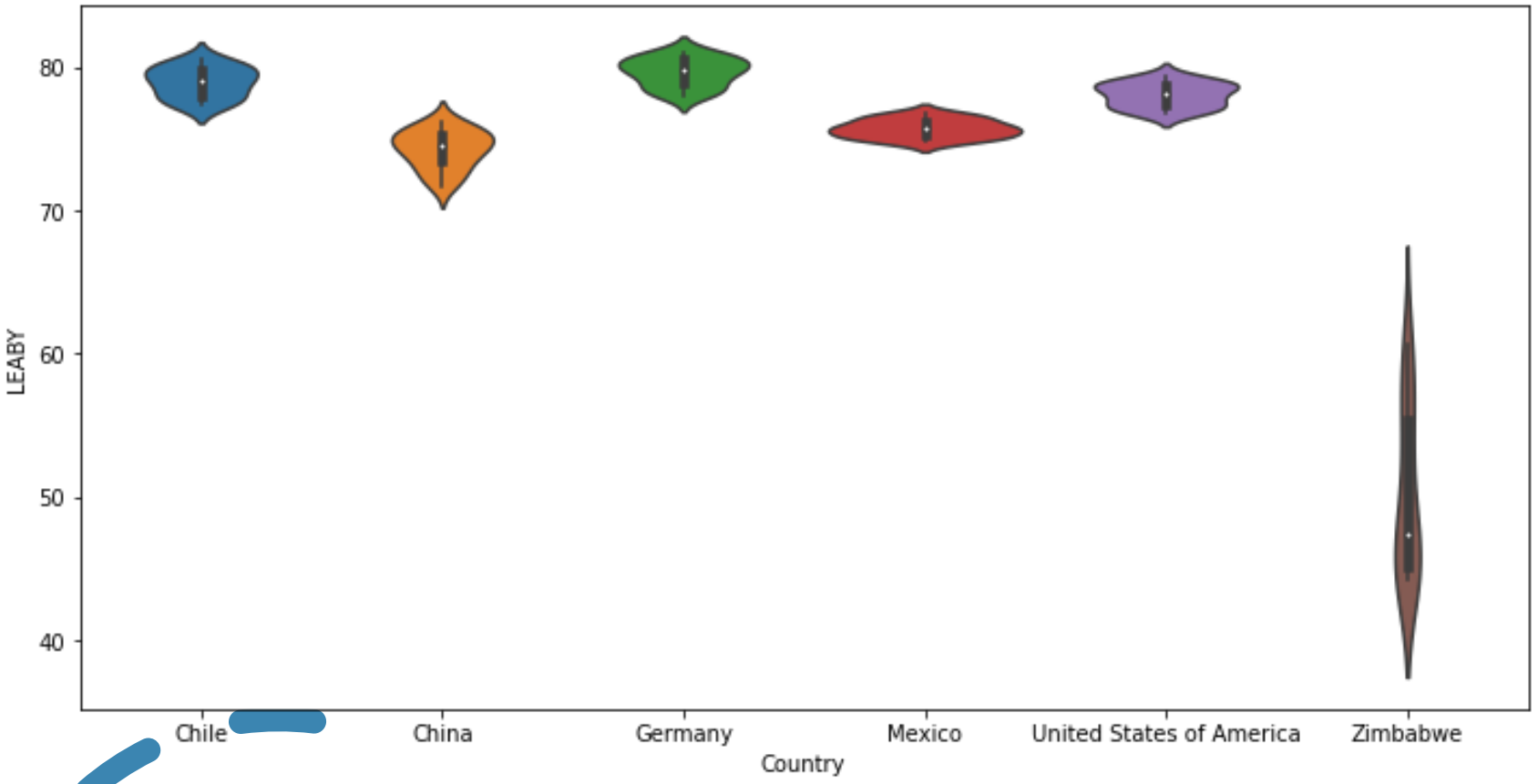
Introduction

For this project, I will act as a data researcher for the World Health Organization. The project aims to investigate if there is a strong correlation between the economic output of a country and the life expectancy of its citizens. The countries represented in the data are Chile, China, Germany, Mexico, United States of America, and Zimbabwe. The data ranges from 2000 to 2015.

- Life Expectancy Distribution by Country
- GDP vs. Life Expectancy by Country
- Life Expectancy by Country
- GDP by Country

Data Source: World Health Organization, World Banknational accounts data, and OECD National Accounts data files.

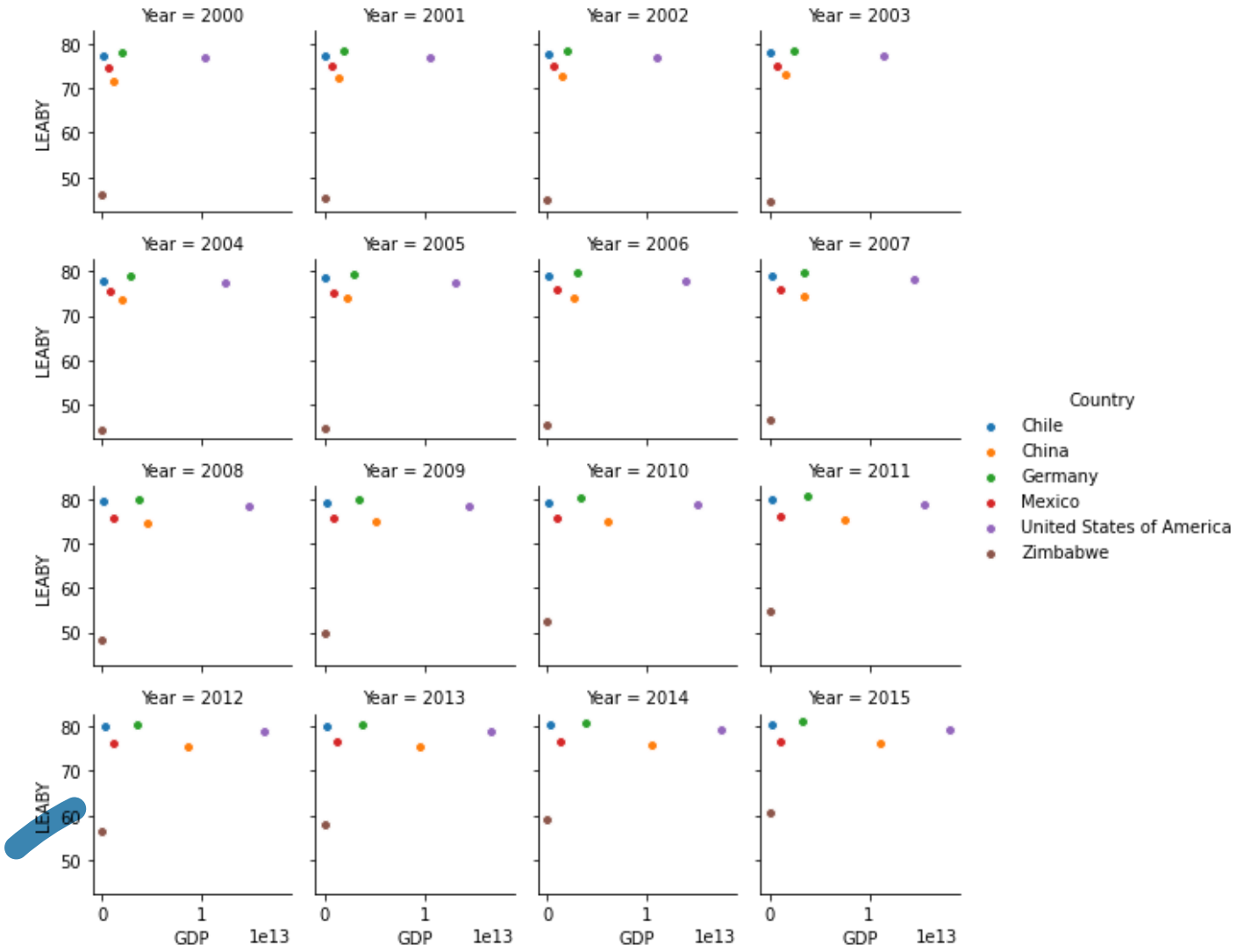
Life Expectancy Distribution by Country (Violin Plot)



- Zimbabwe stood out the most. Its life expectancy fluctuated the most.
- Meanwhile, Mexico changed the least in life expectancy.

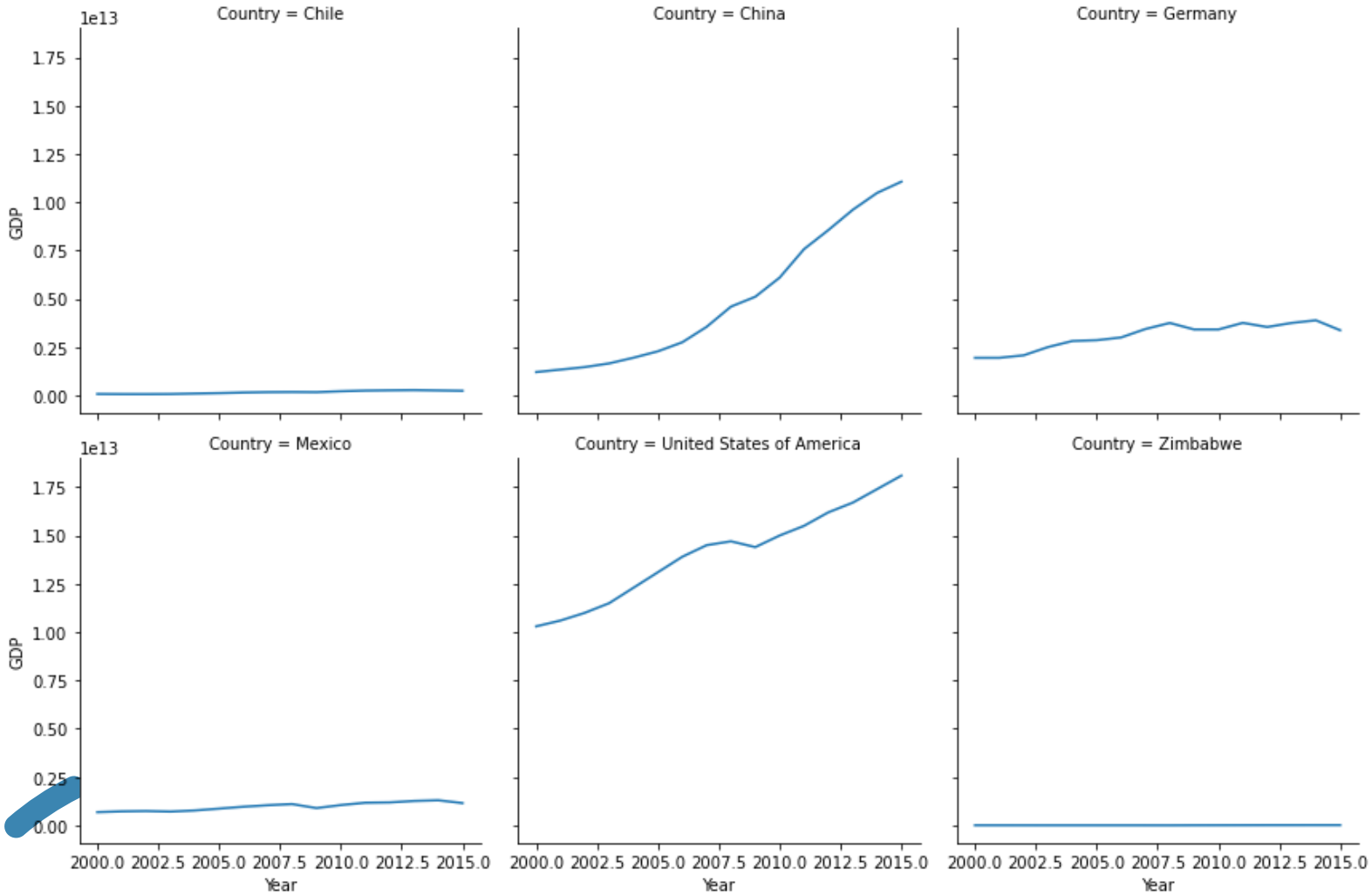
LEABY= Life expectancy at birth (years)

GDP vs. Expectancy by Country (Facet Grid of Scatter Graphs)



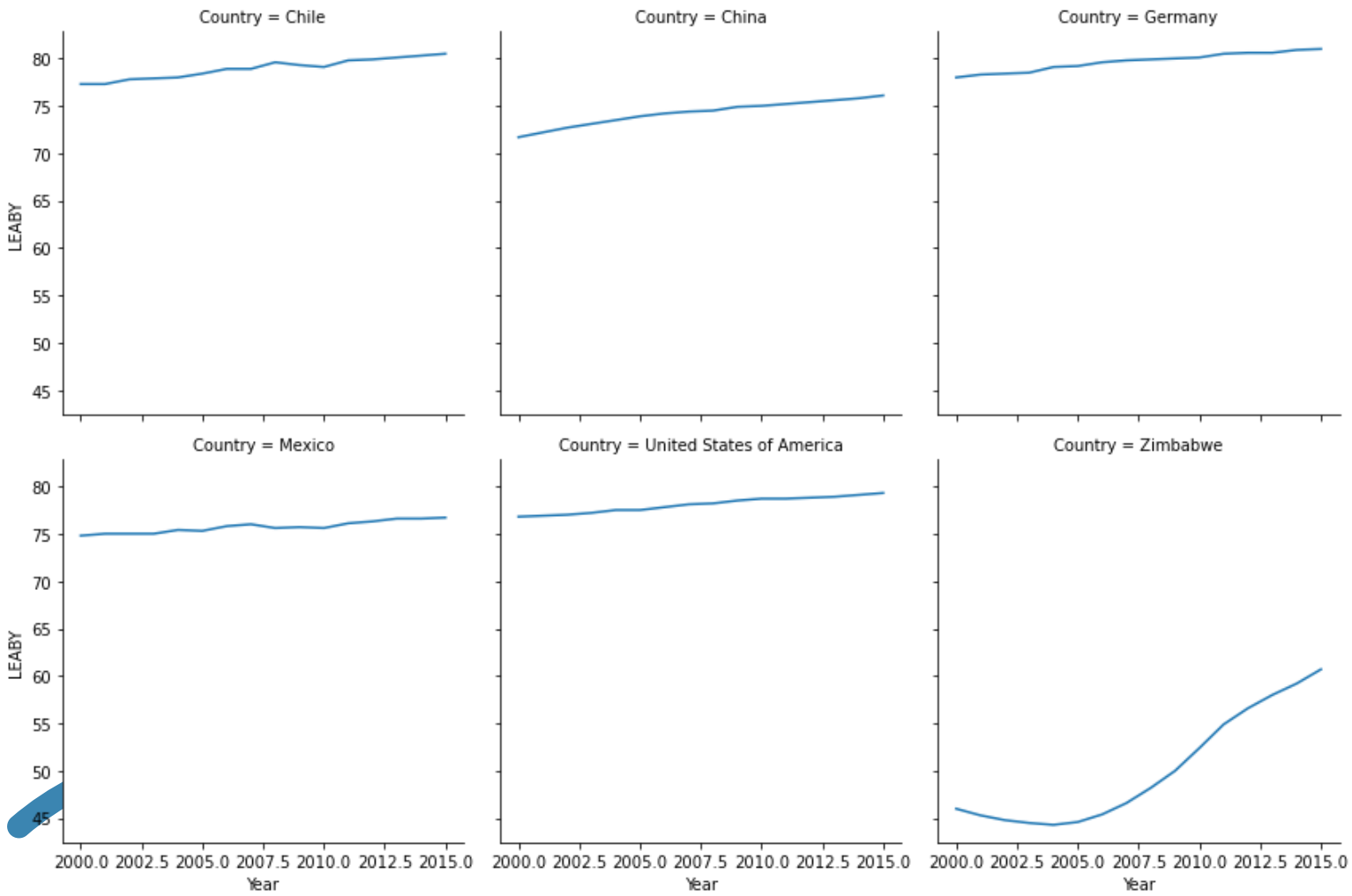
- To understand the possible correlation between GDP and life expectancy, we created scatter plots.
- It showed that China moved the most along X axis along the years. Zimbabwe moved the most along Y axis.
- It seemed like the higher GDP didn't lead to higher life expectancy. However, lower life expectancy could be a direct result of lower GDP.
- Overall, these scatter plots are not easy to read

GDP by Country (Facet Grid of Line Graphs)



- So we recreated the Facetgrid graphs.
- They shows that US and China had the largest GDPs, while Zimbabwe and Chile had the lowest GDPs.

Life Expectancy by Country (Facet Grid of Line Graphs)



- Now switch gear to life expectancy.
- Zimbabwe's line changed the most. The biggest change in the data occurred from 2005 to 2011. This might be related to Zimbabwe's parliamentary elections and relative economic growth.
- Mexico had the least change in life expectancy over time.