

QTM 350 HW 5: World Development Indicators

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2025-10-03

```
## summary statistics table
indicators = ["unemployment_rate", "life_expectancy", "gdp_per_capita"]
summary = df[indicators].describe().T
summary = summary[["count", "mean", "std", "min", "25%", "50%", "75%", "max"]]
summary
```

	count	mean	std	min	25%	50%	75%
unemployment_rate	186.0	7.268661	5.827726	0.130000	3.500750	5.537500	9.4552
life_expectancy	209.0	72.416519	7.713322	52.997000	66.782000	73.514634	78.475
gdp_per_capita	203.0	20345.707649	31308.942225	259.025031	2570.563284	7587.588173	25982

Findings from summary

-The gdp per capita distribution has a wide range of values. The maximum gdp per capita is more than 10x the minimum.

-The life expectancy variable is relatively concentrated — over half of the countries have a life expectancy between 70-80 years.

-The unemployment rate of countries is also concentrated with the mean being 7.27% and the 75% quantile being 9.46%. However, the maximum unemployment rate is 37.85%.

- As GDP increases, life expectancy increases. A higher GDP means more economic flourishing, allowing more of the country to have access to a healthier lifestyle.
- Many of the countries on this list are in Africa.

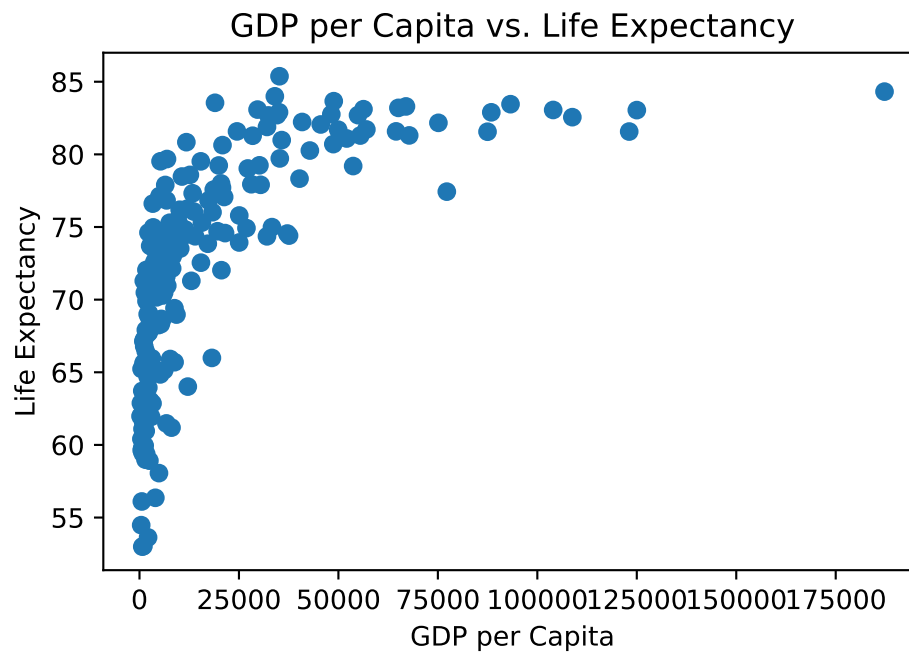


Figure 1: This figure is a scatter plot of GDP per Capita vs. Life Expectancy for countries in the dataset

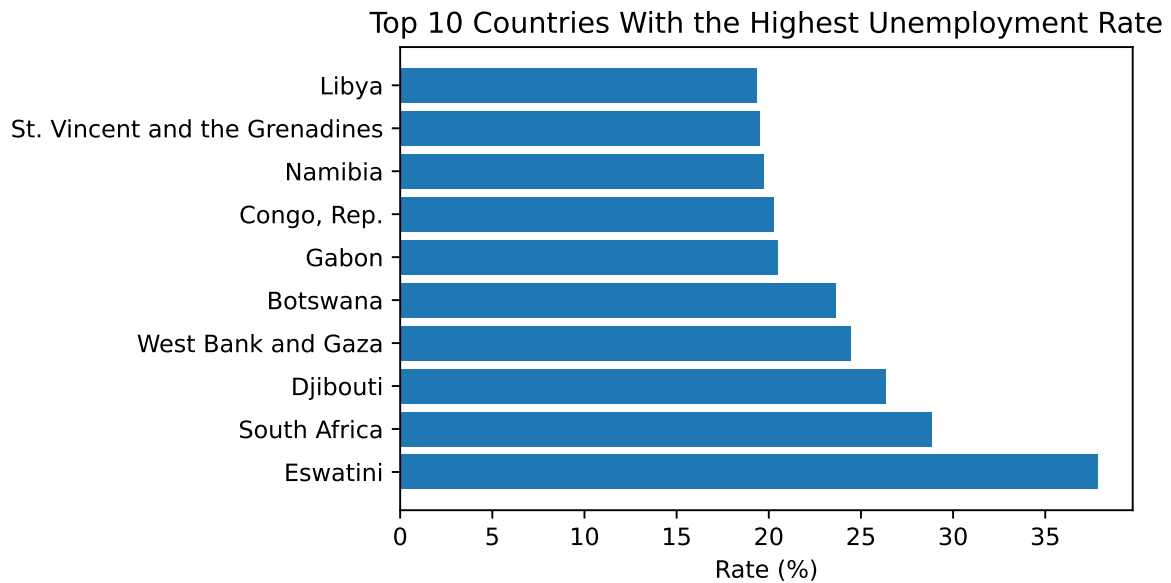


Figure 2: This bar chart shows the top 10 countries with the highest unemployment rates

For a visual plotting of GDP per Capita vs. Life expectancy please see Figure 1. For a bar graph of the top 10 countries with the highest unemployment rate please see Figure 2. A reference for the dataset is World Bank (1978). A reference towards inequality shown by the world indicators is from Pillarisetti (1997).

Pillarisetti, J Ram. 1997. “An Empirical Note on Inequality in the World Development Indicators.” *Applied Economics Letters* 4 (3): 145–47.

World Bank. 1978. *World Development Indicators*. World Bank.