

World Development Indicators Analysis (2022)

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2025-10-07

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(217, 14)

	country	inflation_rate	exports_gdp_share	gdp_growth_rate	\
0	Afghanistan	13.712102	18.380042	-6.240172	
1	Albania	6.725203	37.197082	4.826696	
2	Algeria	9.265516	30.808979	3.600000	
	gdp_per_capita	adult_literacy_rate	primary_school_enrolment_rate	\	
0	357.261153	NaN	NaN		
1	6846.426694	NaN	96.371230		
2	4961.552577	NaN	105.747154		
	education_expenditure_gdp_share	measles_immunisation_rate	\		
0	NaN	56.0			
1	2.729770	86.0			
2	4.749247	79.0			
	health_expenditure_gdp_share	income_inequality	unemployment_rate	\	
0	23.088169	NaN	14.100		
1	6.193681	NaN	10.137		
2	3.623043	NaN	12.346		
	life_expectancy	total_population			
0	65.617	40578842.0			
1	78.769	2777689.0			
2	76.129	45477389.0			

Exploratory Data Analysis

- In this section, we explore three key indicators from the World Development Indicators dataset for 2022: GDP per capita, life expectancy, and inflation rate. We will summarize their distributions and examine patterns across countries.

```
# Select the indicators
eda_indicators = ['gdp_per_capita', 'life_expectancy', 'inflation_rate']

# Summary statistics
df[eda_indicators].describe()
```

	gdp_per_capita	life_expectancy	inflation_rate
count	208.000000	217.000000	175.000000
mean	21175.312219	73.108020	12.631576
std	31035.961639	7.942539	19.920796
min	250.634225	18.818000	-6.687321
25%	2692.573957	67.788000	5.344829
50%	7713.094217	74.160976	7.930929
75%	28905.928012	78.531000	11.781866
max	226052.001905	85.746000	171.205491

Summary of Findings

GDP per capita: There is a wide variation across countries, with some countries having very high GDP per capita while others remain below \$1,000.

Life expectancy: Most countries have life expectancy between 60 and 80 years, with few outliers below 50 years.

Inflation rate: Inflation rates vary considerably, with some countries experiencing negative growth and others exceeding 10%.

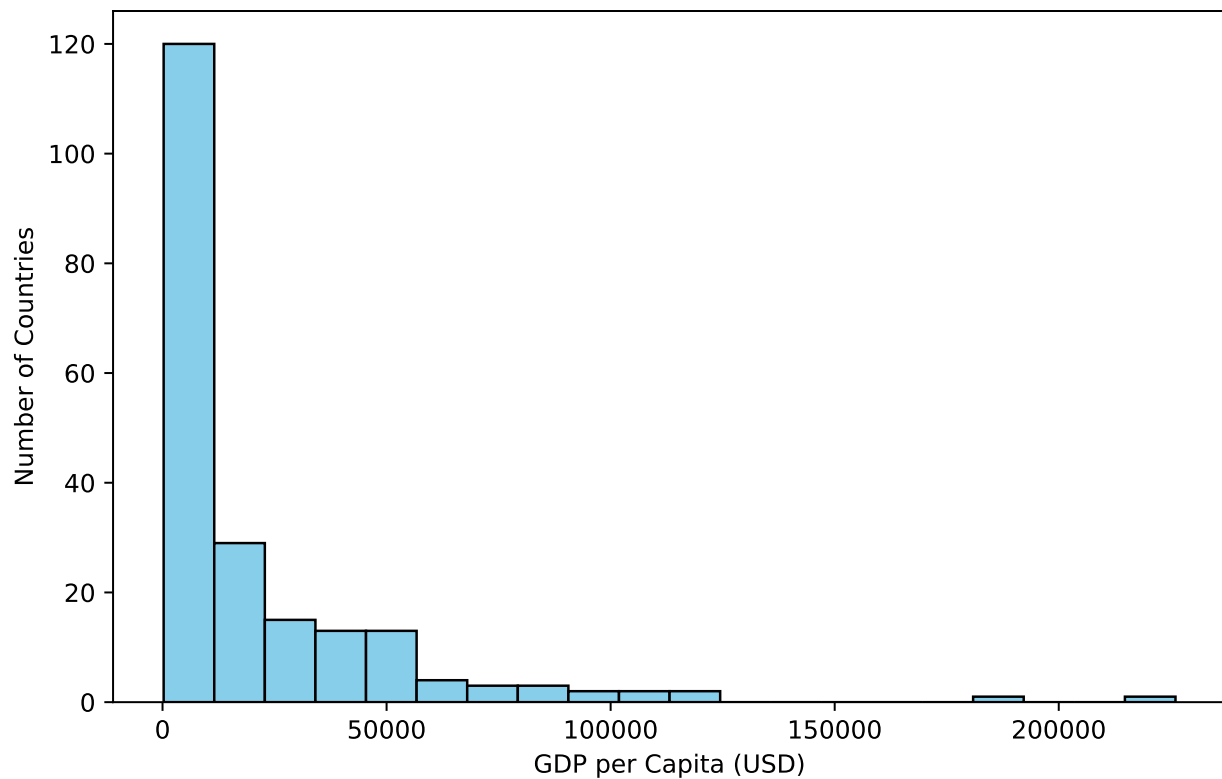


Figure 1: Distribution of GDP per capita across countries in 2022. Source: World Development Indicators (World Bank, 2022).

	gdp_per_capita	life_expectancy	inflation_rate
Mean	21175.31	73.11	12.63
Minimum	250.63	18.82	-6.69
Maximum	226052.00	85.75	171.21

	gdp_per_capita	life_expectancy	inflation_rate
Standard Deviation	31035.96	7.94	19.92

As shown in Figure (**fig:gdp_hist?**), the distribution of GDP per capita varies widely across countries. Figure (**fig:gdp_life?**) highlights a positive correlation between GDP per capita and life expectancy. Key summary statistics are provided in Table (**tbl:summary?**).

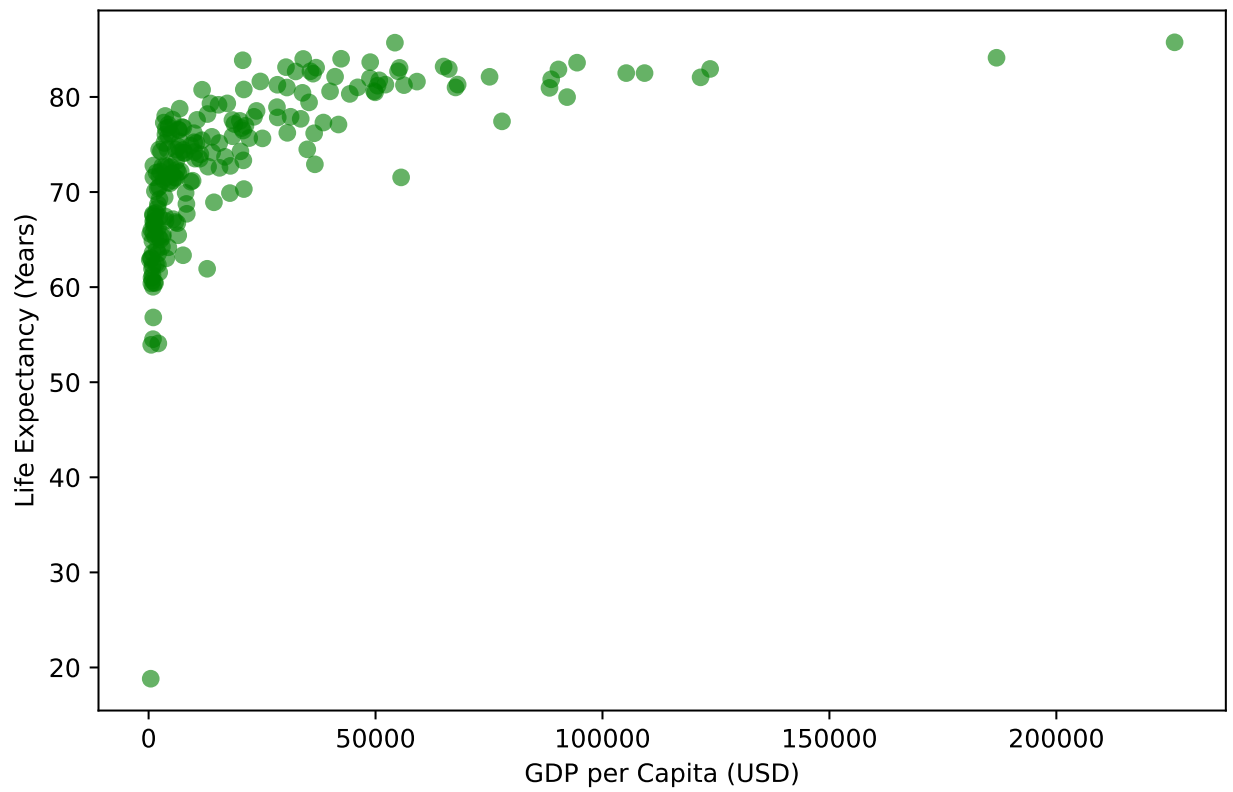


Figure 2: Relationship between GDP per capita and life expectancy across countries in 2022. Source: World Development Indicators (World Bank, 2022).