

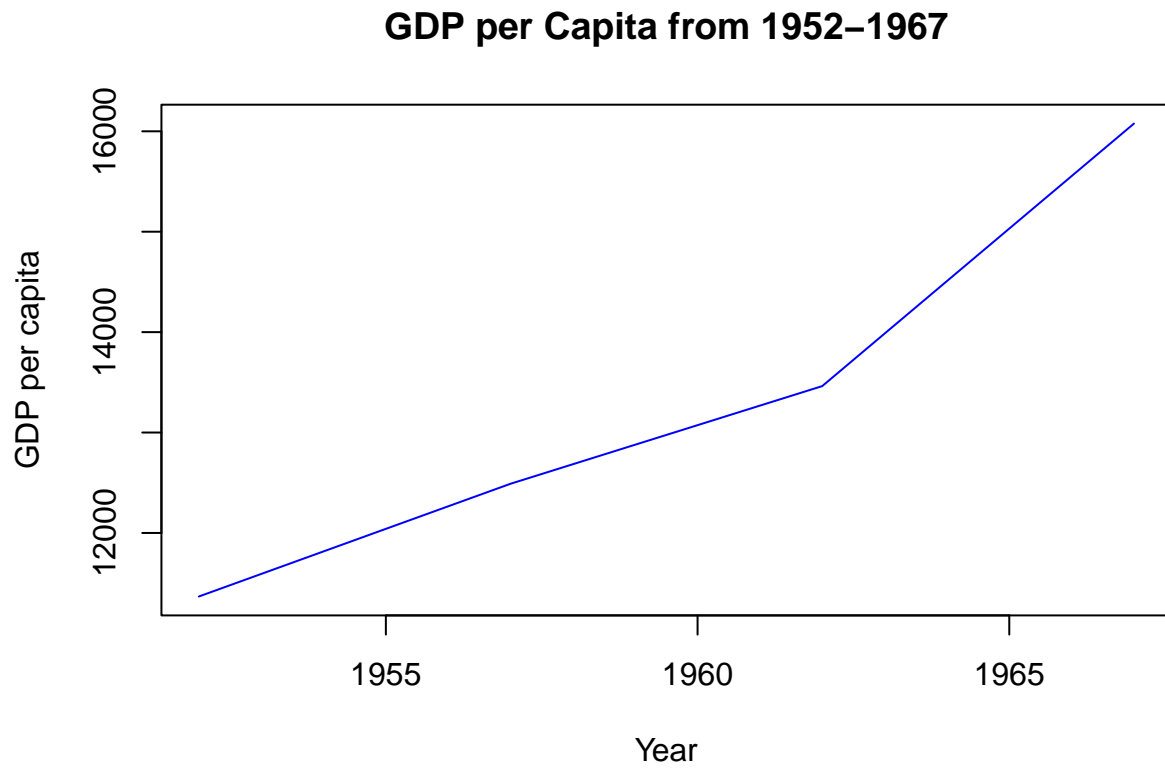
Reproducibility

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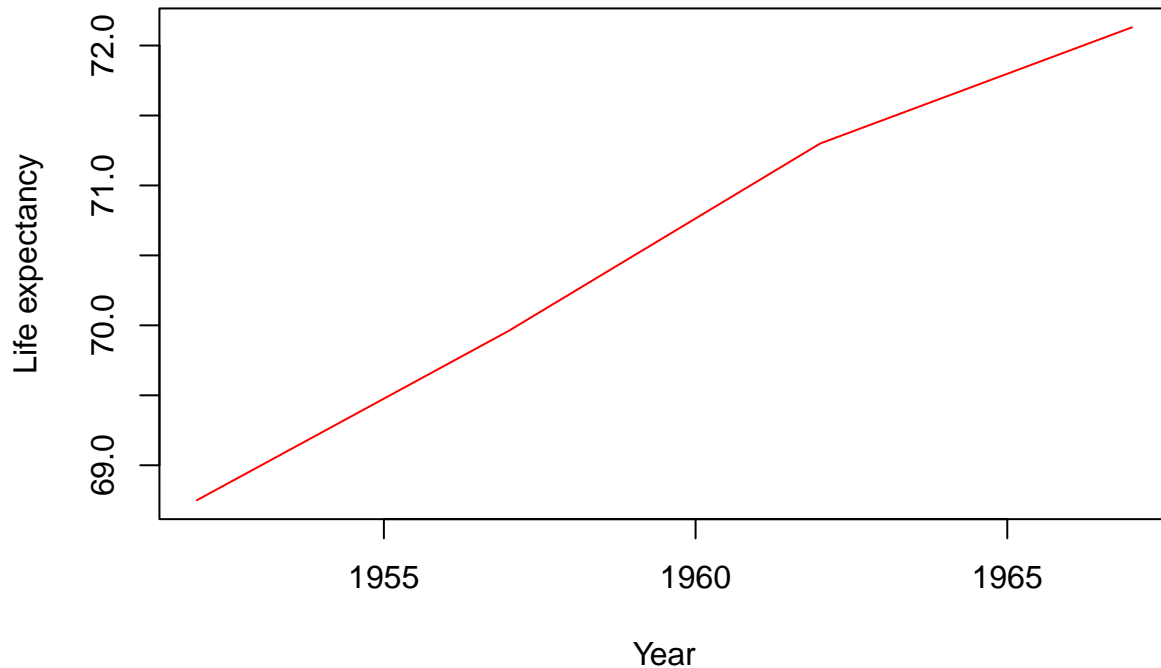
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Canada

Figure 1 shows that life expectancy has been increasing over time in Canada. That is good. Figure 2 shows that Canada's GDP per capita is also increasing over time. Go Canada! I wonder if these two data are correlated?



Life Expectancy from 1952–1967



Life Expectancy and GDP

The objective of this analysis is to test whether GDP per capita leads to higher life expectancy. We hypothesize that the relationship between GDP per capita and life expectancy is positive. We regress life expectancy from 140 countries on GDP per-capita to test our hypothesis. The results are displayed in Table 1.

```
## Registered S3 methods overwritten by 'parameters':  
##   method                                  from  
##   as.double.parameters_kurtosis          datawizard  
##   as.double.parameters_skewness          datawizard  
##   as.double.parameters_smoothness        datawizard  
##   as.numeric.parameters_kurtosis          datawizard  
##   as.numeric.parameters_skewness          datawizard  
##   as.numeric.parameters_smoothness        datawizard  
##   print.parameters_distribution            datawizard  
##   print.parameters_kurtosis                datawizard  
##   print.parameters_skewness                datawizard  
##   summary.parameters_kurtosis              datawizard  
##   summary.parameters_skewness              datawizard  
  
## Learn more about sjmisc with 'browseVignettes("sjmisc")'.
```

Table 1

lifeexp

Predictors

Estimates

(Intercept)

50.2247 ***(49.1649 – 51.2845)

gdpPercap2

0.0005 *** (0.0004 – 0.0006)

Observations

568

R2 / R2 adjusted

0.130 / 0.128

- p<0.05 ** p<0.01 *** p<0.001

The coefficient on gdpPercap is positive and statistically significant at $\alpha = 0.05$, which indicates that for every \$10,000 increase in GDP per capita, life expectancy increases by five years. We can conclude that by continually increasing GDP we can increase life expectancy. Further research should focus on the nonlinear relationship between life expectancy and GDP per capita.