

James Sampugnaro

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Taylor Weidman

Data Analysis

### Relationship between Height and Life Expectancy

Human development has taken a turn in the past century, with a growth in population usually comes a growth in life expectancy too. One curious part of life expectancy is that you can see a connection between that and average height size in countries around the world. What if there was a connection between the two of those statistics. Do taller people tend to live longer, or do short kings reign again? You could probably make an assumption but get the data and finding out for us gives us an answer for sure. I believed at the beginning of my hypothesis that there would be no relation, and I was proven wrong.

For the data used to make these observations, I used different statistic models from Our World in Data and World Bank World Development Indicators. I used these two graphs to find the average life expectancy and height for each country. I also got the overall mean for both being 170 cm tall, and 73 years for life expectancy. Using these stats, I was able to make a scatter plot regression model that said there is a relationship between height and life expectancy, being that taller you are the longer you are supposed to be. In my GLM model, I used height as the predictor and life expectancy as the outcome. The model test is taller countries live longer and follows the basic model for a GLM. Since there is a positive coefficient on height, the tests

suggest that taller people live longer. Though the regression produces a positive coefficient and a p value lower than 0.005, meaning that there is enough confidence to say that the two factors have a relationship, it still does not 100% mean there is a real relationship between life expectancy and height. Factors like wealth of a country, healthcare, and basic human rights violations get in the way of finding out if there is truth behind the evidence.

Examining whether there was a relationship between height and life expectancy is important. We can learn new things about our health and wellbeing that could lead to better living conditions. My GLM found a small relationship between the two that could be accepted with confidence according to my regression model. The model predicted taller people live longer but does not count for a lot of real-world factors. Overall height could have indications of living longer, but height can not be used as a single indicator for life expectancy.

## References

Ritchie, H., & Roser, M. (2023). *Human height; Life expectancy*. Our World in Data.

<https://ourworldindata.org/>

World Bank. (2023). *World Development Indicators: Life expectancy at birth (SP.DYN.LE00.IN)*.

<https://data.worldbank.org/indicator/SP.DYN.LE00.IN>