Data Description

Coursera Capstone – Applied Data Science Capstone

**Topic:** What factors contribute to a country’s average height? My theory is nutrition/diet and wealth but will also look at other factors.

To determine what factors, contribute to a country’s average adult height, I will first be identifying the 10 tallest countries by average height for a male and woman, then the 10 shortest countries.

*Data for height:*

<http://www.averageheight.co/average-male-height-by-country> #website used for a Business insider article on tallest countries

<http://www.ncdrisc.org/data-downloads-height.html> #dataset on height by country

<https://www.worlddata.info/average-bodyheight.php#by-population> #dataset on height by country

**Step 1 – List of countries and height:** Aggregate and average out the heights provided in the (3) datasets and use the final dataset to determine the 10 tallest countries (data needed – country name and height for male and female) and 10 shortest countries.

Next, we will look to gather data on each country.

**Step 2 – Factors that might contribute to a country’s height**: Determine various environmental characteristics that may lead to a country being tall.

These datasets will be scraped from each website and converted to data frames.

* Diet and Nutrition: Theory – a heavy meat (protein) and dairy-based (calcium) diet leads to taller people.
  + Meat consumption per capita
    - <https://en.wikipedia.org/wiki/List_of_countries_by_meat_consumption>
    - <https://worldpopulationreview.com/country-rankings/meat-consumption-by-country>
  + Dairy consumption per capita
    - <https://ourworldindata.org/grapher/per-capita-milk-consumption?tab=table&time=1961..2013>
    - <https://www.statista.com/statistics/272003/global-annual-consumption-of-milk-by-region/>
    - <http://chartsbin.com/view/1491>
  + FourSquare – types of restaurants and price (determines wealth)
* Wealth: Theory – wealthier countries and their citizens have a better quality of life which may lead to taller people.
  + GDP per capita (current) and GDP per capita (year 2000) – country was wealthy 20 years ago which contributed to the people today being tall
    - <https://www.worldometers.info/gdp/gdp-per-capita/>
    - <https://ourworldindata.org/grapher/gdp-per-capita-worldbank>
    - https://data.worldbank.org/indicator/NY.GDP.PCAP.CD
* Sleep: Theory – the more sleep you get, the taller you get (data might be too difficult to find which will lead to this factor being omitted)
  + Average sleep time
* Gravitational Pull: (more off-the-wall) Theory –gravitational pull ranges around the world and maybe that contributes to where people grow tall. Need to confirm.
  + Gravitational pull (by longitude and latitude coordinates of the center of each country)
    - https://www.sensorsone.com/local-gravity-calculator/

Step 3 – Wrangle and organize all data then compare and correlate.