# Assignment 1: gapminder slides

Trevor Baker, 98610074

17/09/2019

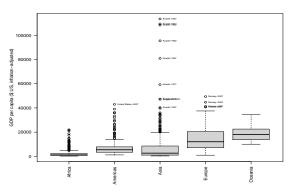
#### Basic dataset overview

'gapminder' is a dataset providing demographic data from 1952 to 2007. Its numeric variables include year, life expectancy, population and GDP per capita. Here is a simple statistical summary of them:

```
lifeExp
     year
                                      pop
Min.
        :1952
                       :23.60
                                 Min.
                                              60011
                                                                   241.2
1st Qu.:1966
                1st Qu.:48.20
                                 1st Qu.:
                                            2793664
                                                       1st Qu.:
                                                                  1202.1
Median:1980
                Median :60.71
                                 Median :
                                            7023596
                                                       Median :
                                                                  3531.8
       :1980
                       :59.47
                                           29601212
Mean
                Mean
                                Mean
                                                       Mean
                                                                  7215.3
3rd Qu.:1993
                3rd Qu.:70.85
                                 3rd Qu.:
                                                       3rd Qu.:
                                                                  9325.5
                                           19585222
        .2007
                       .82.60
Max
                Max.
                                 Max
                                        ·1318683096
                                                       Max.
                                                               \cdot 113523.1
```

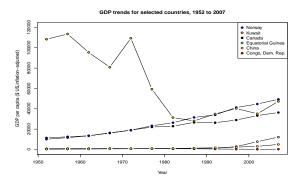
## GDP ranges by continent

While Oceania is the richest continent on average, Kuwait, which is on the Asian continent, is the richest country overall. In the graph below, all countries with average income values greater than \$50000 have been labelled. These include Kuwait, Norway, Singapore, and the United States.



#### GDP trends by country over time

Most countries had a positive trend in GDP over the dataset period, but a few, such as the Democratic Republic of Congo, actually decreased in inflation-adjusted GDP.



## GDP and life expectancy

You can see general groupings of GDP and life expectancy by continent in the graph below. There seems to be an asymptotic relationship between life expectancy and GDP - mean life expectancy doesn't increase much beyond 80 years, no matter how rich the country.

