STATS 205: Final Project Write-Up

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1. Background of the data and why it is interesting or important

The data we are using is the data from WHO suicide statistics from Kaggle. This gives population-based statistics on suicide rate...

2. Explanation of the method studied and its properties

3. Data analysis or simulation study

We will use the crude rate of suicide per 100,000 people.

This analysis provides information on age-standardized rates...

```
who_suicide_statistics_df <- read.csv("who_suicide_statistics.csv")
nrow(who_suicide_statistics_df)
```

```
## [1] 43776
```

```
colnames(who_suicide_statistics_df)
```

```
## [1] "country"     "year"        "sex"         "age"         "suicides_no"
## [6] "population"
```

Filter and save countries with missing suicide rate.

```
library(tidyverse)
```

```
## Registered S3 methods overwritten by 'ggplot2':
##   method         from
##   [.quosures     rlang
##   c.quosures     rlang
##   print.quosures rlang
```

```
## -- Attaching packages --------------------------------- tidyverse 1.2.1 --
```

```
## v ggplot2 3.1.1     v purrr   0.3.2
## v tibble  2.1.1     v dplyr   0.8.1
## v tidyr   0.8.3     v stringr 1.4.0
## v readr   1.3.1     v forcats 0.4.0
```

```
## -- Conflicts ------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
filtered_suicide_df <- drop_na(who_suicide_statistics_df, "suicides_no")
nrow(filtered_suicide_df)
```

```
## [1] 41520
```

```
write.csv(filtered_suicide_df, 'filtered_suicide.csv')
```

After filtering countries with missing suicide rate, take a random sample of 100 countries and make sure each continent has approximately equal countries.

$$\frac{100 \text{ countries}}{7 \text{ continents}} \approx 14 \text{ to } 15 \text{ countries per continent}$$

Filter countries by continent:

```
install.packages("countrycode", dependencies=TRUE, repos='http://cran.us.r-project.org')
```

```
## Installing package into '/home/bliutwo/R/x86_64-pc-linux-gnu-library/3.6'
## (as 'lib' is unspecified)
```

```
library(countrycode)
filtered_suicide_df$continent <- countrycode(sourcevar = filtered_suicide_df[, "country"],
                            origin = "country.name",
                            destination = "continent")
```

```
## Warning in countrycode(sourcevar = filtered_suicide_df[, "country"], origin = "country.name", : Some
```

```
## Warning in countrycode(sourcevar = filtered_suicide_df[, "country"], origin = "country.name", : Some
```

```
head(filtered_suicide_df)
```

```
##    country year    sex         age suicides_no population continent
## 25 Albania 1987 female 15-24 years          14     289700    Europe
## 26 Albania 1987 female 25-34 years           4     257200    Europe
## 27 Albania 1987 female 35-54 years           6     278800    Europe
## 28 Albania 1987 female  5-14 years           0     311000    Europe
## 29 Albania 1987 female 55-74 years           0     144600    Europe
## 30 Albania 1987 female   75+ years           1      35600    Europe
```

```
# Get seven dataframes, filtered by list of countries for each continent.
```

4. Interpretation of the results or discussion