Untitled

Lindsay Beyak

3/31/2021

library(tidycensus)  
library(tidyverse)  
library(dplyr)  
library(ggplot2)

#### Exercise 1

#a)  
census\_api\_key("2153faf1e1d25707ef71c8c464cb4c2c08be4e76")

## To install your API key for use in future sessions, run this function with `install = TRUE`.

install = TRUE  
  
year00 <- get\_decennial(geography = "state",   
 variables = "P013001",   
 year = 2000)

## Getting data from the 2000 decennial Census

## Using Census Summary File 1

year00

## # A tibble: 52 x 4  
## GEOID NAME variable value  
## <chr> <chr> <chr> <dbl>  
## 1 01 Alabama P013001 35.8  
## 2 02 Alaska P013001 32.4  
## 3 04 Arizona P013001 34.2  
## 4 05 Arkansas P013001 36   
## 5 06 California P013001 33.3  
## 6 08 Colorado P013001 34.3  
## 7 09 Connecticut P013001 37.4  
## 8 10 Delaware P013001 36   
## 9 11 District of Columbia P013001 34.6  
## 10 12 Florida P013001 38.7  
## # … with 42 more rows

#b)  
mean(year00$value)

## [1] 35.45192

median(year00$value)

## [1] 35.75

min(year00$value)

## [1] 27.1

quantile(year00$value, 0.25)

## 25%   
## 34.675

quantile(year00$value, 0.75)

## 75%   
## 36.225

#### Exercise 2

#a)  
year10 <- get\_decennial(geography = "state",   
 variables = "P013H002",   
 year = 2010)

## Getting data from the 2010 decennial Census

## Using Census Summary File 1

year10

## # A tibble: 52 x 4  
## GEOID NAME variable value  
## <chr> <chr> <chr> <dbl>  
## 1 01 Alabama P013H002 25.3  
## 2 02 Alaska P013H002 24.2  
## 3 04 Arizona P013H002 24.8  
## 4 05 Arkansas P013H002 24   
## 5 06 California P013H002 26.5  
## 6 22 Louisiana P013H002 28.9  
## 7 21 Kentucky P013H002 25.4  
## 8 08 Colorado P013H002 26.2  
## 9 09 Connecticut P013H002 26.5  
## 10 10 Delaware P013H002 24.9  
## # … with 42 more rows

#b)  
mean(year10$value)

## [1] 25.54231

median(year10$value)

## [1] 24.9

min(year10$value)

## [1] 22.4

quantile(year10$value, 0.25)

## 25%   
## 23.975

quantile(year10$value, 0.75)

## 75%   
## 26.425

#c)  
 m25 <- year10 %>% select(NAME | value) %>%  
 filter(value < 25)  
   
m25

## # A tibble: 28 x 2  
## NAME value  
## <chr> <dbl>  
## 1 Alaska 24.2  
## 2 Arizona 24.8  
## 3 Arkansas 24   
## 4 Delaware 24.9  
## 5 Hawaii 24.5  
## 6 Idaho 22.9  
## 7 Indiana 24.5  
## 8 Iowa 22.8  
## 9 Kansas 23.5  
## 10 Maine 23.1  
## # … with 18 more rows