Week 5

Mayuree

2022-06-25

```
##Importing the csv file from github
url <- "https://raw.githubusercontent.com/fivethirtyeight/data/master/hate-
crimes/hate_crimes.csv"
data <- read.csv(url)

library(tidyverse)

## -- Attaching packages ------------------------------------- tidyverse
1.3.1 --

## v ggplot2 3.3.5      v purrr   0.3.4
## v tibble  3.1.6      v dplyr   1.0.9
## v tidyr   1.2.0      v stringr 1.4.0
## v readr   2.1.2      v forcats 0.5.1

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

data %>% select(median_household_income, hate_crimes_per_100k_splc) %>%
  filter(if_all(c(median_household_income, hate_crimes_per_100k_splc),
~!is.na(.x))) %>%
  ggplot(aes(x=median_household_income, y=hate_crimes_per_100k_splc)) +
  geom_point() +
  geom_smooth(method = "lm", se=TRUE, fullrange=FALSE, level=0.95)+
  ggtitle("Hate Crime vs Income Inequality") +
  xlab("Median household income") +
  ylab("Hate crimes per 100K people(Southern Poverty Law Center)")

## `geom_smooth()` using formula 'y ~ x'
```
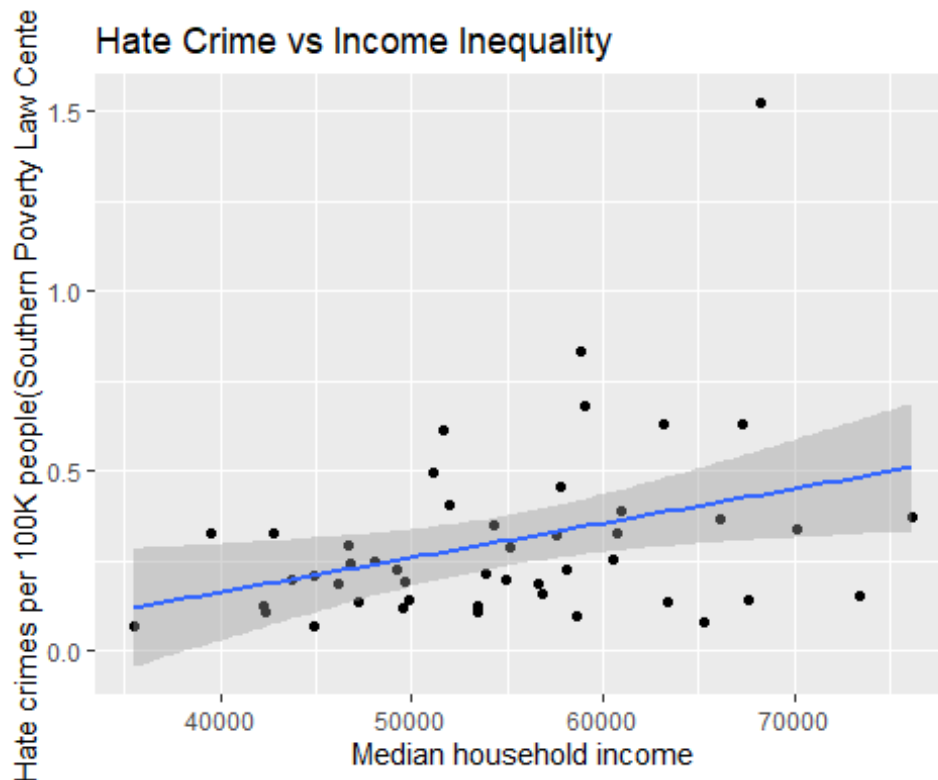
Hate Crime vs Income Inequality

Scatterplot: x-axis "Median household income" (40000, 50000, 60000, 70000), y-axis "Hate crimes per 100K people(Southern Poverty Law Cente" (0.0, 0.5, 1.0, 1.5).

```
## This shows a scatterplot with respect to Income Inequality. This scatter
plot shows that as the Income Inequality increases , the hate crimes also
increases.

#This bar graph shows the top states ranked according to
hate_crimes_per_100k_splc.
##This shows that District of Columbia(DC) has the highest Hatecrime &
colorado has the lowesr rate of hate crime.
library(ggplot2)
# Basic barplot
p<-ggplot(data =
filter(data,dense_rank(desc(hate_crimes_per_100k_splc))<=10), aes(x=
reorder(state,(hate_crimes_per_100k_splc)), y= hate_crimes_per_100k_splc)) +
  geom_bar(stat="identity")
p
```
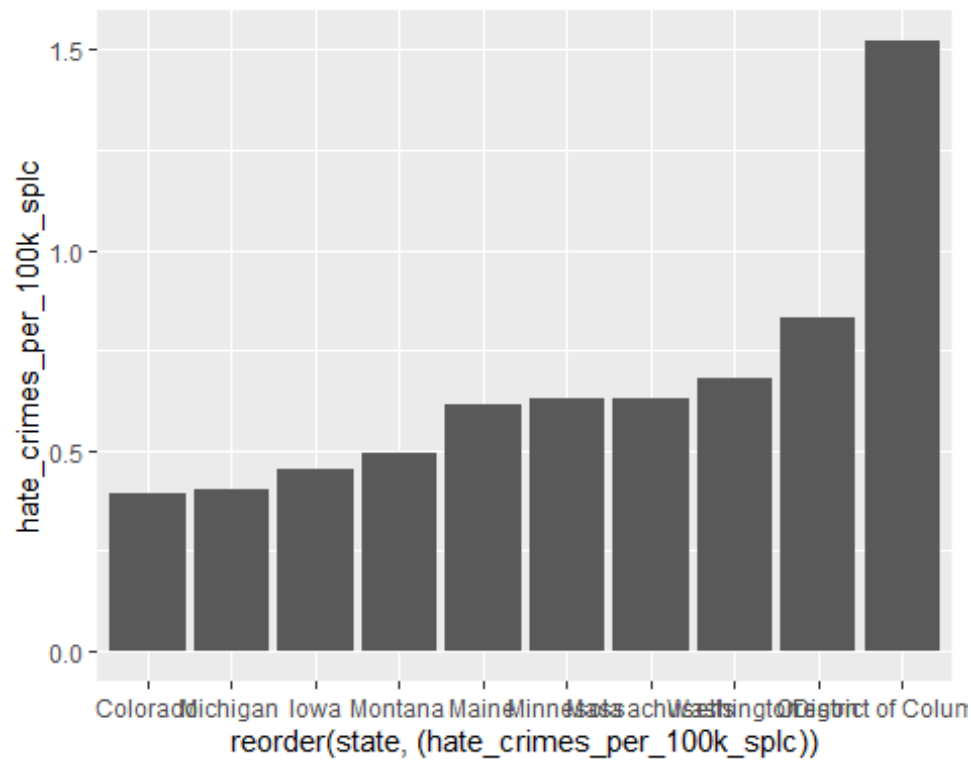
```
p + coord_flip()
```