Tidy-week7

Xingnuo Zhang

4/2/2021

```
tuesdata <- tidytuesdayR::tt_load('2021-02-09')
```

```
## --- Compiling #TidyTuesday Information for 2021-02-09 ----
```

```
## --- There are 11 files available ---
```

```
## --- Starting Download ---
```

```
##
##  Downloading file 1 of 11: `home_owner.csv`
##  Downloading file 2 of 11: `income_aggregate.csv`
##  Downloading file 3 of 11: `income_distribution.csv`
##  Downloading file 4 of 11: `income_limits.csv`
##  Downloading file 5 of 11: `income_mean.csv`
##  Downloading file 6 of 11: `income_time.csv`
##  Downloading file 7 of 11: `lifetime_earn.csv`
##  Downloading file 8 of 11: `lifetime_wealth.csv`
##  Downloading file 9 of 11: `race_wealth.csv`
##  Downloading file 10 of 11: `retirement.csv`
##  Downloading file 11 of 11: `student_debt.csv`
```

```
## --- Download complete ---
```

```
tuesdata <- tidytuesdayR::tt_load(2021, week = 7)
```

```
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##
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```

```
## --- Download complete ---
```

```
lifetime_earn <- tuesdata$lifetime_earn
income_distribution <- tuesdata$income_distribution
race_wealth <- tuesdata$race_wealth
income_mean <- tuesdata$income_mean
```

```
library(tidyverse)
```

```
## -- Attaching packages --------------------------------------- tidyverse 1.3.0 --
```

```
## v ggplot2 3.3.3     v purrr   0.3.4
## v tibble  3.1.0     v dplyr   1.0.5
## v tidyr   1.1.3     v stringr 1.4.0
## v readr   1.4.0     v forcats 0.5.1
```

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

```
library(viridis)
```

```
## Loading required package: viridisLite
```

```
#install.packages("hrbrthemes")
library(hrbrthemes)
```

```
## NOTE: Either Arial Narrow or Roboto Condensed fonts are required to use these themes.
```

```
##       Please use hrbrthemes::import_roboto_condensed() to install Roboto Condensed and
```

```
##       if Arial Narrow is not on your system, please see https://bit.ly/arialnarrow
```

```
#install.packages("gganimate")
library(gganimate)
```

```
## No renderer backend detected. gganimate will default to writing frames to separate files
## Consider installing:
## - the `gifski` package for gif output
## - the `av` package for video output
## and restarting the R session
```

```
income_mean$income_quintile_f <- factor(income_mean$income_quintile,
                                        levels = c("Top 5%", "Highest", "Second", "Middle", "Fourth
income_mean %>%
  filter(year > 1996 &
           race == c('White Alone','Black Alone','Hispanic','Asian Alone', 'All Races') &
           dollar_type == 'Current Dollars') %>%
  ggplot(aes(x = year,y = income_dollars, colour = race)) +
  geom_line(method = "lm", formula = 'y~x') +
  scale_y_continuous() +
  facet_grid(income_quintile_f ~ race, scales = "free") +
  theme_classic() +
  theme(legend.position = "none") +
  labs(x = "Year",
       y = "Total",
       title = "Mean Income Trend of Different Races during 1996-2016",
       caption = str_c("Created by: Xingnuo Zhang, U of T\n",
       "Data source: Urban Institute & US Census"))
```

```
## Warning in race == c("White Alone", "Black Alone", "Hispanic", "Asian Alone", :
```

```
## longer object length is not a multiple of shorter object length
## Warning: Ignoring unknown parameters: method, formula
```