

# HW5

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```
library(tidyverse)
library(broom)
library(sf)
library(tigris)

files_in_data <- list.files("data")
print(files_in_data)
```

## [1] "homicide-data.csv"

## Homicide Data

```
homicide <- read.csv("data/homicide-data.csv")
```

## Denver, CO Data

```
denver_homicides <- homicide %>%
  filter(city == "Denver", state == "CO") %>%
  filter(!is.na(lon), !is.na(lat)) %>%
  mutate(
    status = ifelse(disposition == "Closed by arrest",
                     "Solved",
                     "Unsolved")
  ) %>%
  mutate(
    race_cat = fct_lump(victim_race, n = 3)
  ) %>%
  st_as_sf(coords = c("lon", "lat"), crs = 4326)
```

```
options(tigris_use_cache = TRUE)
denver_tracts <- tracts(state = "CO", county = "Denver",
                         cb = TRUE, year = 2019)
```

## Denver Map

```
ggplot() +
  geom_sf(data = denver_tracts, fill = "white", color = "gray70", size = 0.2) +
  geom_sf(data = denver_homicides, aes(color = race_cat),
          size = 0.8, alpha = 0.6) +
```

```
facet_wrap(~ status) +
  scale_color_brewer(palette = "Set1", name = "Victim Race") +
  labs(title = "Homicides in Denver, CO") +
  theme_minimal() +
  theme(
    axis.text = element_blank(),
    axis.ticks = element_blank(),
    panel.grid = element_blank()
  )
```

## Homicides in Denver, CO

