Homework_5

Owen Bevis

2024-11-04

Load libraries

```
library("tidyverse")
library("ggthemes")
library("tigris")
library("forcats")
```

Load data and pick city

```
homicides <- read_csv("../data/homicide-data.csv") %>%
  filter(city == "Louisville")
```

Use Tigris to download sub-city information as sf objects.

```
L_block_groups <- block_groups(state = "KY",
                               county = "Jefferson",
                               class = "sf")
```

```
##   |                                                                              |
```

```
L_county_sub <- county_subdivisions(state = "KY",
                                    county = "Jefferson",
                                    class = "sf")
```

```
##   |                                                                              |
```

Reorder homicides data

```
homicides <- homicides %>%
  mutate(victim_race = factor(victim_race,
                              levels = c("White", "Black", "Hispanic", "Asian", "Other"))) %>%
  mutate(victim_race = fct_lump_n(victim_race, n = 3))
```

Create the plot

```
ggplot() +
  geom_sf(data = L_block_groups, color = "snow3", fill = NA) +
  geom_sf(data = L_county_sub, color = "black", fill = NA) +
  geom_point(data = homicides,
             aes(x = lon, y = lat, color = victim_race),
             alpha = 0.5) +
  scale_color_manual(values = c("White" = "purple1",
                                "Black" = "orange1",
                                "Hispanic" = "steelblue3",
                                "Other" = "seagreen4"),
                     name = "victim race") +
  facet_wrap(~ disposition) +
  theme_few() +
  theme(legend.position = "top") +
  labs(x = "",
       y = "") +
  ggtitle("Map of homicides in Louisville, KY",
          subtitle = "grouped by case status and showing the top 3 races")
```