HW #5

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```
library(tidyverse)
```

```
## -- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
## v dplyr     1.1.4     v readr     2.1.5
## v forcats   1.0.0     v stringr   1.5.1
## v ggplot2   4.0.0     v tibble    3.3.0
## v lubridate 1.9.4     v tidyr     1.3.1
## v purrr     1.1.0
## -- Conflicts ---------------------------------------- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

```
library(tigris)
```

```
## Warning: package 'tigris' was built under R version 4.5.2
```

```
## To enable caching of data, set `options(tigris_use_cache = TRUE)`
## in your R script or .Rprofile.
```

```
library(sf)
```

```
## Warning: package 'sf' was built under R version 4.5.2
```

```
## Linking to GEOS 3.13.1, GDAL 3.11.4, PROJ 9.7.0; sf_use_s2() is TRUE
```

```
library(ggthemes)
```

```
homicides <- read_csv("../data/homicide-data.csv")
```

```
## Rows: 52179 Columns: 12
## -- Column specification --------------------------------------------------------
## Delimiter: ","
## chr (9): uid, victim_last, victim_first, victim_race, victim_age, victim_sex...
## dbl (3): reported_date, lat, lon
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

```r
oak_homicides <- homicides %>%
  filter(city == "Oakland") %>%
  st_as_sf(coords = c("lon", "lat")) %>%
  st_set_crs(4269) %>%
  mutate(victim_race = factor(victim_race),
         victim_race = fct_lump_n(victim_race, n = 3))
```

```r
oakland <- places(state = "CA",
                          cb = TRUE,
                          class = "sf") %>%
  filter(NAME == "Oakland")
```

```
## Retrieving data for the year 2024
```

```
##   |                                                                              |
```

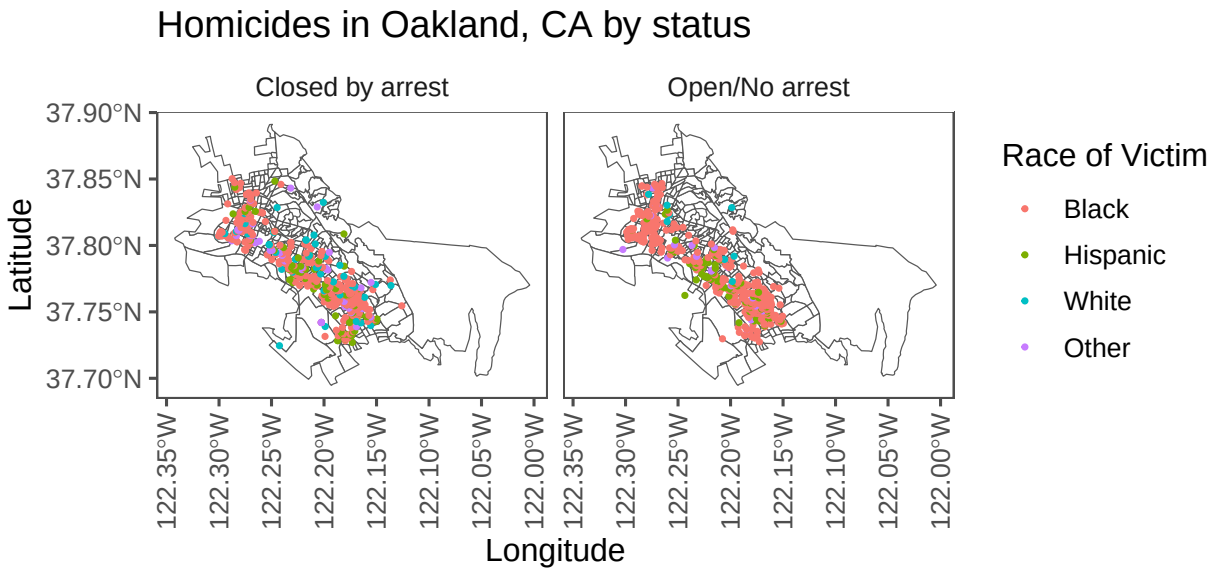
```r
alameda_bg <- block_groups(state = "CA",
                          county = "Alameda",
                          cb = TRUE,
                          class = "sf")
```

```
## Retrieving data for the year 2024
```

```
##   |                                                                              |
```

```r
oakland_bg <- st_filter(alameda_bg, oakland)
```

```r
ggplot() +
  geom_sf(data = oakland_bg, aes(), fill = "white") +
  geom_sf(data = oak_homicides, aes(color = victim_race), size = 0.6) +
  facet_wrap(. ~ disposition, ncol = 2) +
  theme_few() +
  labs(color = "Race of Victim", y = "Latitude", x = "Longitude") +
  theme(axis.text.x = element_text(angle = 90, vjust = 0.5, hjust = 1)) +
  ggtitle("Homicides in Oakland, CA by status")
```


Homicides in Oakland, CA by status
Closed by arrest
Open/No arrest
Latitude
37.90°N
37.85°N
37.80°N
37.75°N
37.70°N
122.35°W
122.30°W
122.25°W
122.20°W
122.15°W
122.10°W
122.05°W
122.00°W
Longitude
Race of Victim
Black
Hispanic
White
Other