

535 HW5

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Homicide Data for 50 U.S. Cities

```
## Packages to be installed for this assignment
library(tidyverse)
library(forcats)
library(broom)
library(purrr)
library(ggplot2)
library(ggthemes)
library(scales)
library(tigris)
```

Read in the Data

```
homicides <- read.csv("C:/Users/k_deb/OneDrive - Colostate/ERHS 535/homicide-data.csv")
homicides$city_name <- paste(homicides$city, homicides$state, sep=",")
```

Add variable for unsolved homicides

```
homicides$disp_unsolved = (homicides$disposition != "Closed by arrest")
head(homicides)
```

```
##      uid reported_date victim_last victim_first victim_race victim_age
## 1 Alb-000001    20100504    GARCIA        JUAN    Hispanic        78
## 2 Alb-000002    20100216    MONTOYA    CAMERON    Hispanic        17
## 3 Alb-000003    20100601 SATTERFIELD    VIVIANA      White        15
## 4 Alb-000004    20100101    MENDIOLA    CARLOS    Hispanic        32
## 5 Alb-000005    20100102      MULA    VIVIAN      White        72
## 6 Alb-000006    20100126      BOOK    GERALDINE    White        91
##   victim_sex    city state    lat    lon    disposition
## 1      Male Albuquerque    NM 35.09579 -106.5386 Closed without arrest
## 2      Male Albuquerque    NM 35.05681 -106.7153    Closed by arrest
## 3     Female Albuquerque    NM 35.08609 -106.6956 Closed without arrest
## 4      Male Albuquerque    NM 35.07849 -106.5561    Closed by arrest
## 5     Female Albuquerque    NM 35.13036 -106.5810 Closed without arrest
## 6     Female Albuquerque    NM 35.15111 -106.5378    Open/No arrest
##      city_name disp_unsolved
## 1 Albuquerque,NM          TRUE
## 2 Albuquerque,NM          FALSE
## 3 Albuquerque,NM          TRUE
```

```
## 4 Albuquerque,NM      FALSE
## 5 Albuquerque,NM      TRUE
## 6 Albuquerque,NM      TRUE
```

```
denver_map<- tracts("CO", "Denver")
```

```
## Retrieving data for the year 2020
```

```
## |
```

```
denver_homicides <-
  filter(homicides, city_name=="Denver,CO")
```

```
head(denver_homicides)
```

```
##      uid reported_date      victim_last victim_first victim_race
## 1 Den-000001    20100101 HOWARD-CROSTHWAIT    ANTHONY      White
## 2 Den-000002    20100103              DURAN      ELOY      Hispanic
## 3 Den-000003    20100105      SINGLETON    DOUGLASS      Other
## 4 Den-000004    20100111              LEE      DESHON      Black
## 5 Den-000005    20100111      FRANKLIN    LONELL      Black
## 6 Den-000006    20100207      GARCIA      GERRARDO      Hispanic
##  victim_age victim_sex  city state      lat      lon      disposition
## 1      38      Male Denver    CO 39.73915 -105.0012 Closed without arrest
## 2      25      Male Denver    CO 39.72231 -105.0448 Closed by arrest
## 3      59      Male Denver    CO 39.75592 -104.9148 Closed by arrest
## 4      19      Male Denver    CO 39.76179 -104.9499 Open/No arrest
## 5      21      Male Denver    CO 39.76179 -104.9499 Open/No arrest
## 6      21      Male Denver    CO 39.70540 -105.0423 Closed by arrest
##  city_name disp_unsolved
## 1 Denver,CO      TRUE
## 2 Denver,CO      FALSE
## 3 Denver,CO      FALSE
## 4 Denver,CO      TRUE
## 5 Denver,CO      TRUE
## 6 Denver,CO      FALSE
```

```
denver <- ggplot() +
  geom_sf(data=denver_map) +
  geom_point(data=denver_homicides, aes(x=lon, y=lat, col=fct_lump(victim_race, n=3))) +
  labs(x= "Longitude", y="Latitude", title= "Homicides in Denver, Colorado", col= "Victim Race") +
  theme_few()
denver + facet_wrap(~disp_unsolved, ncol=1)
```

Homicides in Denver, Colorado

