# Lab 1 - Data visualization

[Ann Chang]

### Load Packages

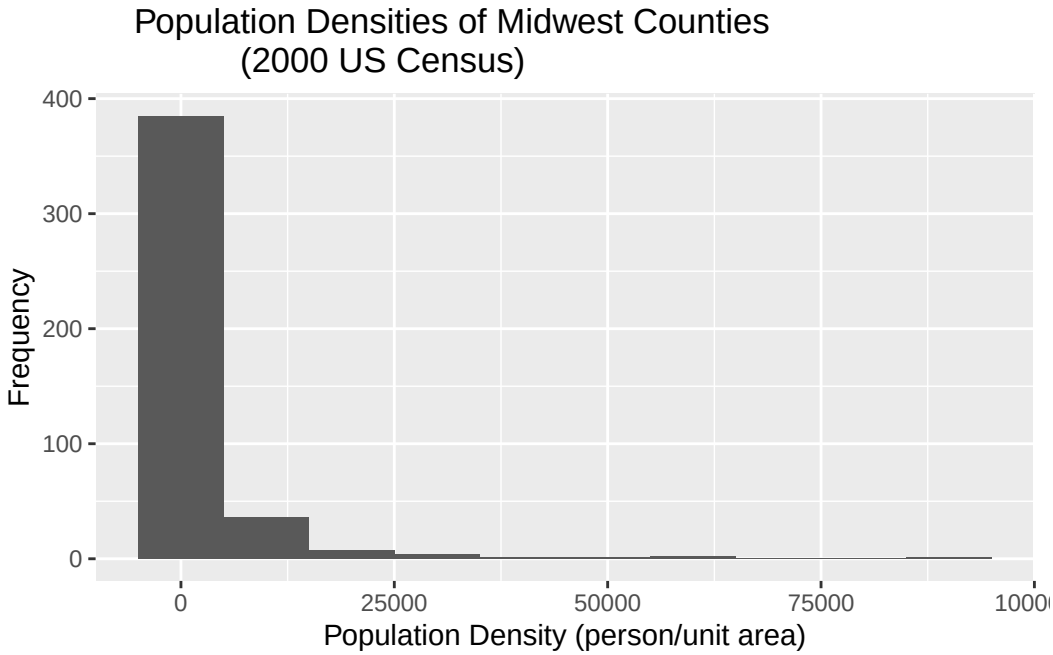
```
library(tidyverse)
```

```
Warning in system("timedatectl", intern = TRUE): running command 'timedatectl'
had status 1
```

```
library(viridis)
```

### Exercise 1

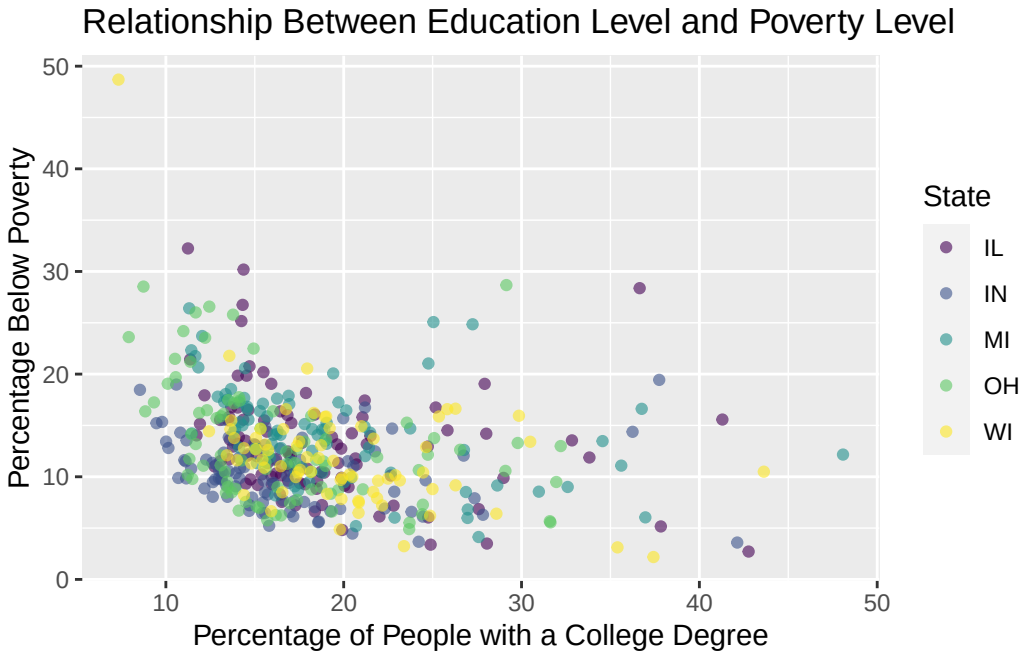
```
ggplot(data = midwest,
       aes(x = popdensity)) +
  geom_histogram(binwidth = 10000) +
  labs(
    x = "Population Density (person/unit area)",
    y = "Frequency",
    title =
      "    Population Densities of Midwest Counties
              (2000 US Census)"
    )
```




- The distribution of the data seem to be right-skewed.
- There seem to be some outliers of relatively large population densities, such as the incidences beyond 50000 people/unit area.

## Exercise 2

```
ggplot(data = midwest,
       aes(x = percollege,
           y = percbelowpoverty,
           color = state)) +
  geom_point(alpha = 0.6) +
  labs(
    x = "Percentage of People with a College Degree",
    y = "Percentage Below Poverty",
    title = "Relationship Between Education Level and Poverty Level",
    color = "State"
  ) +
  scale_color_viridis_d()
```




**Exercise 3**

(Type your answer to Exercise 3 here. Add code chunks as needed. Don't forget to label your code chunk. Do not use spaces in code chunk labels.)

**Exercise 4**

**Exercise 5**

**Exercise 6**

**Exercise 7**