EDS241: Assignment 2

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In this assignment, test whether the effects of air quality regulations are the same accorss locations with different racial mix. More specifically, test if the NOx Budget Program, a cap-and-trade market for nitrogen oxides (NOx) emissions from power plants leads to similar effects in counties that are predominantly white versus counties that are predominantly black.

NBP = 1 if the county was regulated under the NOx Budget Program NBP = 0 if the county was NOT regulated under the NOx Budget Program

PctBlack = the fraction of the county population that is black Dnox_masstons = the change in annual NOx emissions from all power plants in a county between 2000 and 2008 (in tons). Dnox_masstons values are negative for counties where emissions of NOx from power plants declined.

1 Read Data

```
data <- read_excel(here("data", "NBP.xls"), sheet = "Sheet1")
```

2 Question a:

Make a histogram depicting the distribution of Dnox_masstons.

```
Dnox_histogram <- ggplot(data = data, aes(x = Dnox_masstons)) +
  geom_histogram(fill = "seagreen") +
  labs(x = "Change in annual NOx emmisions (tons)")
```

Figure 1: Histogram of county level change in annual NOx emissions