

The Air Quality Dataset

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Summary of Air Quality Dataset

This exercise will be working with the built-in `air quality` dataset.¹ This dataset contains 154 daily air quality measurements in New York from May 1, 1973 (a Tuesday) to September 30, 1973. (Degroot 2018, 20)The dataset contains 6 variables:

- **Ozone:** Mean ozone in parts per billion (*ppb*) from 1300 to 1500 hours at Roosevelt Island;
- **Solar.R:** Solar radiation in Langleys (*lang*) in the frequency band 4000-7700 Angstroms from 0800 to 1200 hours at Central Park;
- **Wind:** Average wind speed in miles per hour (*mph*) at 0700 and 1000 hours at LaGuardia Airport;
- **Temp:** Maximum daily temperature in degrees Fahrenheit (*oF*) at LaGuardia Airport;
- **Month:** numeric month (*1-12*)
- **Day:** numeric Day of the month (*1-31*)

Table of Top of the Air Quality Dataset

```
knitr::kable(head(airquality),  
              caption = 'Top of the Air Quality Dataset')
```

Table 1: Top of the Air Quality Dataset

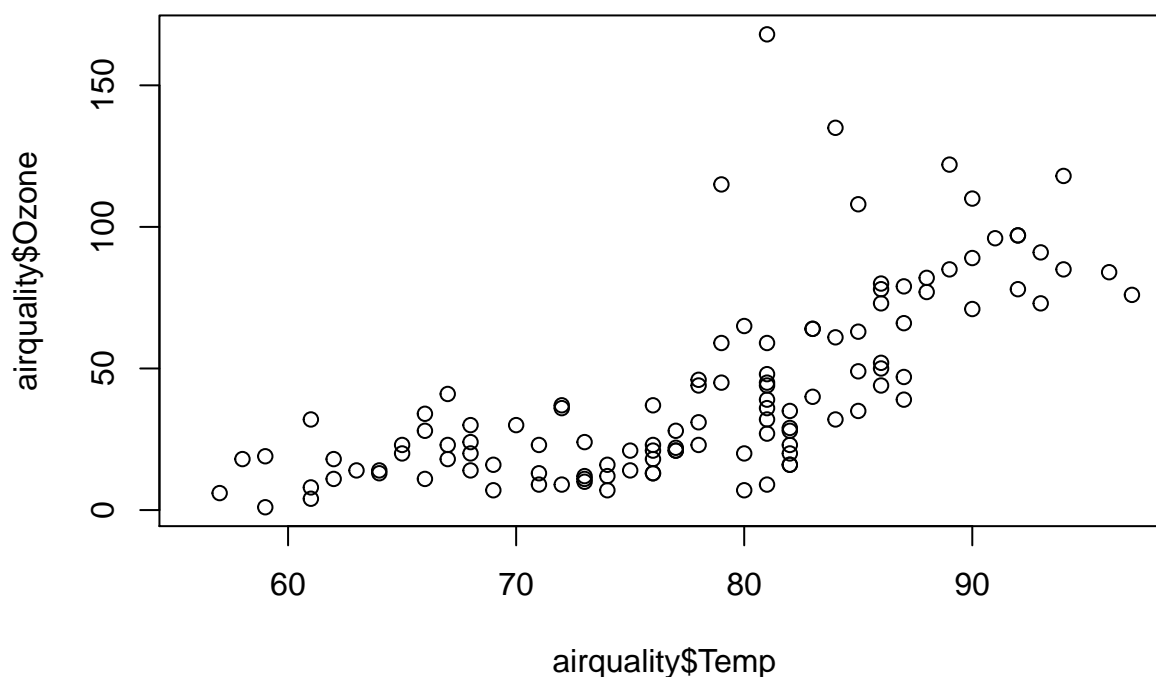
Ozone	Solar.R	Wind	Temp	Month	Day
41	190	7.4	67	5	1
36	118	8.0	72	5	2
12	149	12.6	74	5	3
18	313	11.5	62	5	4
NA	NA	14.3	56	5	5
28	NA	14.9	66	5	6

Plot of Ozone by Temperature -Air Quality Dataset

```
plot(airquality$Temp, airquality$Ozone,  
     main="Airquality: Ozone by Temperature")
```

¹Chambers, J. M., Cleveland, W. S., Kleiner, B. and Tukey, P. A. (1983) Graphical Methods for Data Analysis. Belmont, CA: Wadsworth.

Airquality: Ozone by Temperature



References

Degroot, Dagomar. 2018. "Climate Change and Conflict." In *The Palgrave Handbook of Climate History*, edited by Sam White, Christian Pfister, and Franz Mauelshagen, 367–85. London, UK: Palgrave Macmillan UK. https://doi.org/10.1057/978-1-137-43020-5_29.