

QCB 408 / 508 – Notes on Week X

Your Name

2020-02-10

If your name is Robert Fripp and you're scribing notes for Week 3, for example, then rename this file `week03_scribed_fripp.Rmd`. Any additional files, such as data files should be included in a directory called `data/`, where this directory is in the same location as `week03_scribed_fripp.Rmd`. The data would then be accessed below by `./data/dataset.csv`, for example. Do not deviate from this convention. Also, do not use a data file name that has already been used (see here for those already in use). By default the working directory when compiling a `.Rmd` file is the location of the `.Rmd` file.

Summary

A summary of the week's topics discussed below (like an abstract). Maybe you want to include a list of the topics as well:

- Probability
- Random Variables
- Hardy-Weinberg equilibrium

First topic

There are LaTeX macros above to make each person's notes similar in format. Examples:

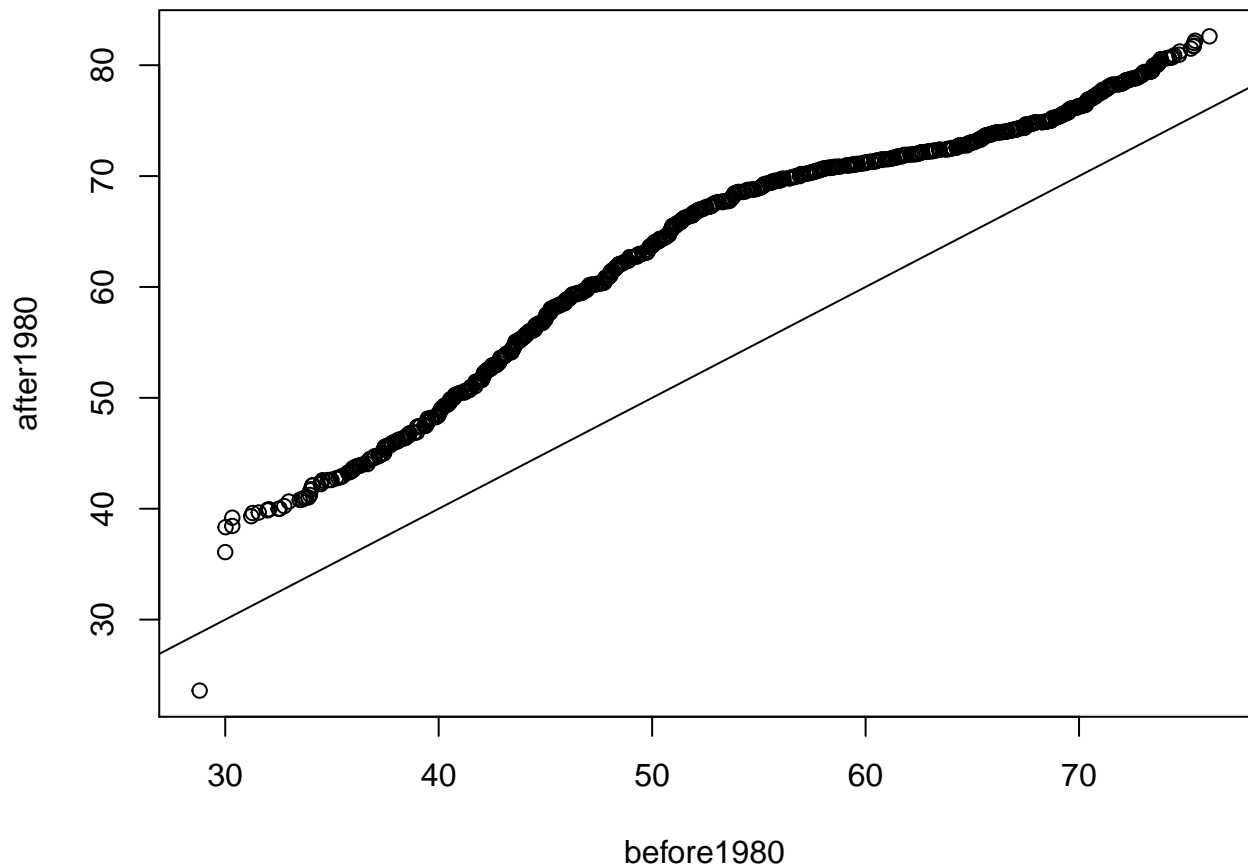
$$E[X] = \sum_k k \Pr(X = k),$$

$$\text{FDR} = E \left[\frac{V}{R \vee 1} 1(R > 0) \right].$$

Of course, equations can be inline as well, $n \rightarrow \infty$.

First subsection

```
> before1980 <- gapminder %>% filter(year < 1980) %>%  
+   select(lifeExp) %>% unlist()  
> after1980 <- gapminder %>% filter(year > 1980) %>%  
+   select(lifeExp) %>% unlist()  
> qqplot(before1980, after1980); abline(0,1)
```



Second subsection

Second topic

First subsection

Second subsection

Etc.

Session Information

```
> sessionInfo()
R version 3.6.0 (2019-04-26)
Platform: x86_64-apple-darwin15.6.0 (64-bit)
Running under: macOS 10.15.2

Matrix products: default
BLAS: /Library/Frameworks/R.framework/Versions/3.6/Resources/lib/libRblas.0.dylib
LAPACK: /Library/Frameworks/R.framework/Versions/3.6/Resources/lib/libRlapack.dylib

locale:
[1] en_US.UTF-8/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8

attached base packages:
[1] stats    graphics  grDevices  utils      datasets  methods    base
```

other attached packages:

```
[1] gapminder_0.3.0 forcats_0.4.0 stringr_1.4.0 dplyr_0.8.1
[5] purrr_0.3.2 readr_1.3.1 tidyr_0.8.3 tibble_2.1.1
[9] ggplot2_3.1.1 tidyverse_1.2.1 knitr_1.22
```

loaded via a namespace (and not attached):

```
[1] Rcpp_1.0.1 cellranger_1.1.0 pillar_1.4.0 compiler_3.6.0
[5] plyr_1.8.4 tools_3.6.0 digest_0.6.18 lubridate_1.7.4
[9] jsonlite_1.6 evaluate_0.13 nlme_3.1-140 gtable_0.3.0
[13] lattice_0.20-38 pkgconfig_2.0.2 rlang_0.3.4 cli_1.1.0
[17] rstudioapi_0.10 yaml_2.2.0 haven_2.1.0 xfun_0.7
[21] withr_2.1.2 xml2_1.2.0 http_1.4.0 hms_0.4.2
[25] generics_0.0.2 grid_3.6.0 tidyselect_0.2.5 glue_1.3.1
[29] R6_2.4.0 readxl_1.3.1 rmarkdown_1.12 modelr_0.1.4
[33] magrittr_1.5 backports_1.1.4 scales_1.0.0 htmltools_0.3.6
[37] rvest_0.3.3 assertthat_0.2.1 colorspace_1.4-1 stringi_1.4.3
[41] lazyeval_0.2.2 munsell_0.5.0 broom_0.5.2 crayon_1.3.4
```