

Homework 2

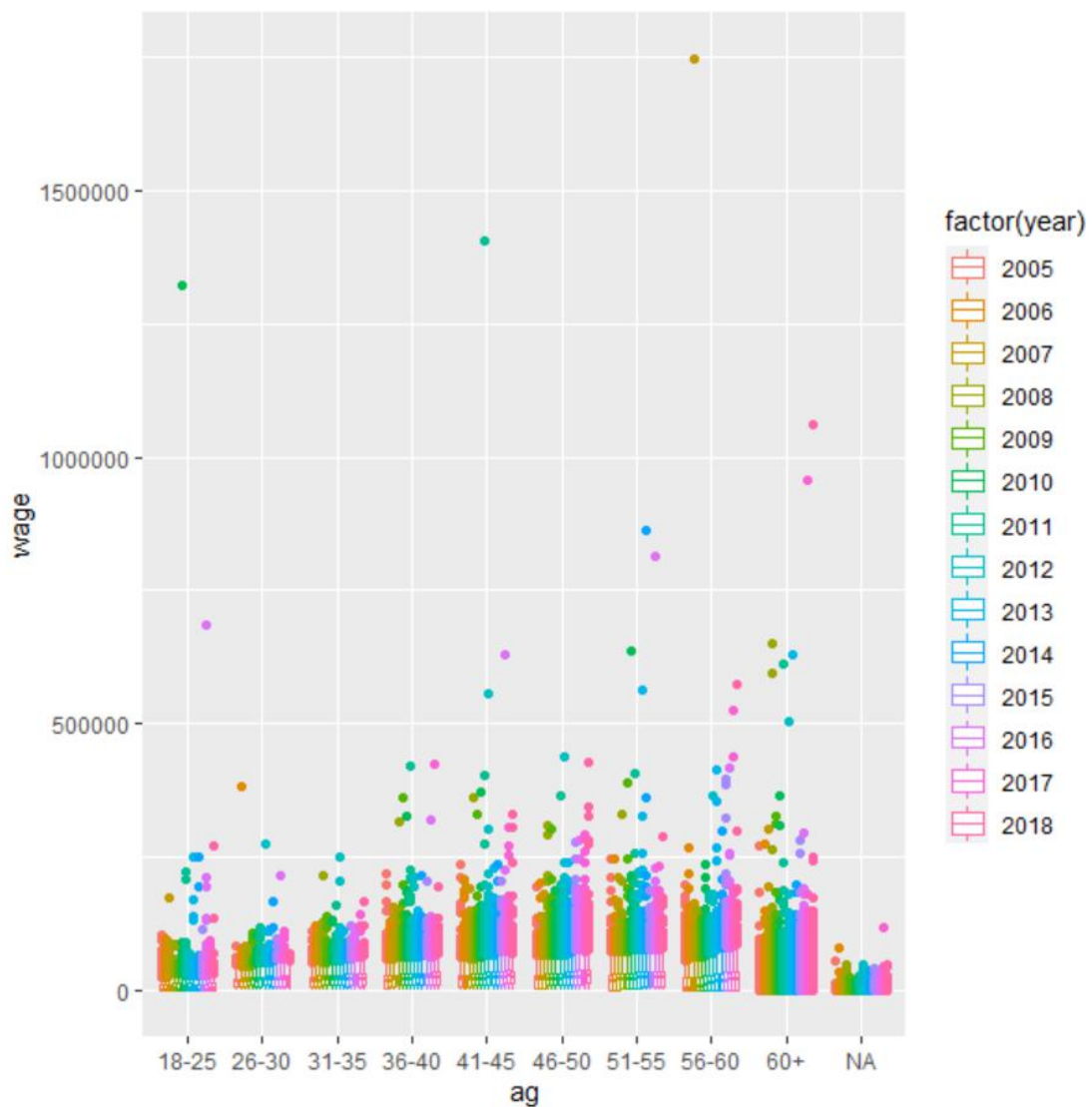
Tianpei Zhu

Exercise 1

- The correlation between Y and X is -0.1788512
- The intercept is -180.176457223401, the slope is 22075.1065764526
- Using the standard formulas of the OLS, the standard errors of β is [357.827521, 6.968652]'. Using bootstrap with 49 replications, the standard errors of β is [293.1 ,4.766283]'. Using bootstrap with 499 replications, the standard errors of β is [314.265 5.598984]'.

Exercise 2

-
- As age getting elder, the wage first increase and then decrease.



- c. The intercept become smaller, and the effect of age become smaller.

Exercise 3

- b. The log likelihood is -6582.155

Exercise 4

Exercise 5

- b. The standard error in probit model of exercise3 is 7.6905e-05.
The standard error in probit model of exercise4 is 2.3512e-05
The standard error in logitmodel of exercise4 0.00012388