Homework 2 - Research in Health Economics
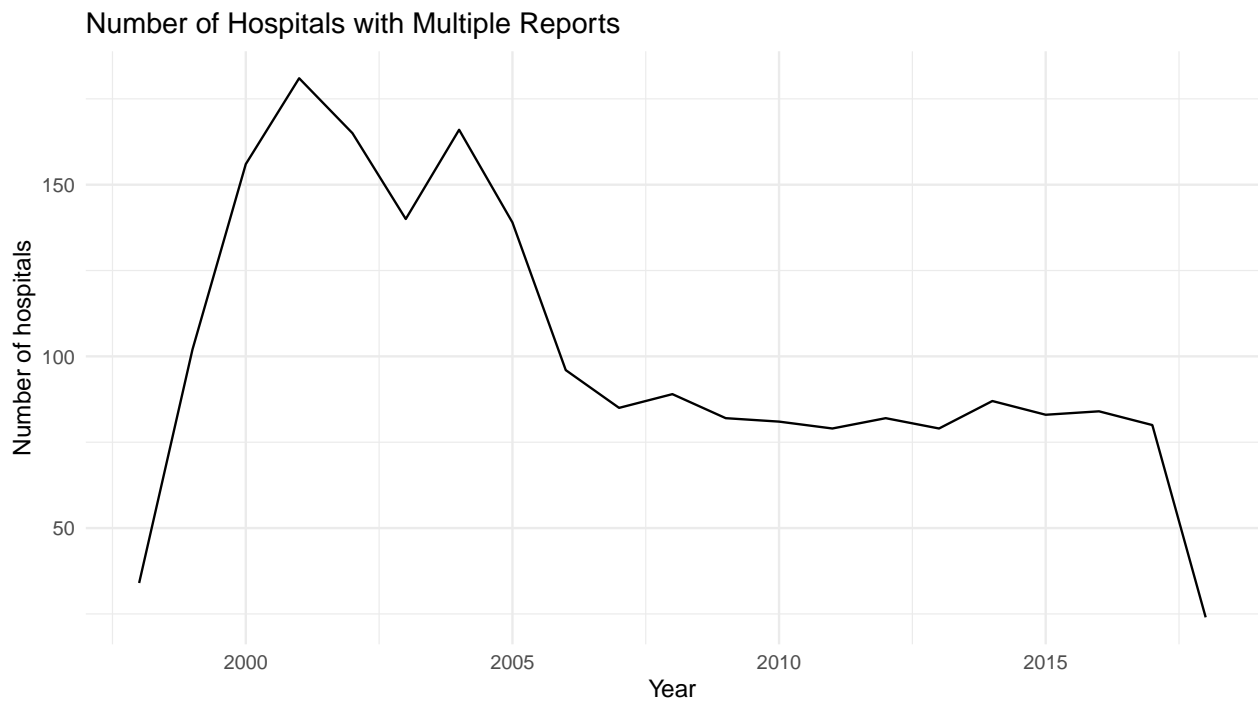
Ammarah Ahmed

Question 1
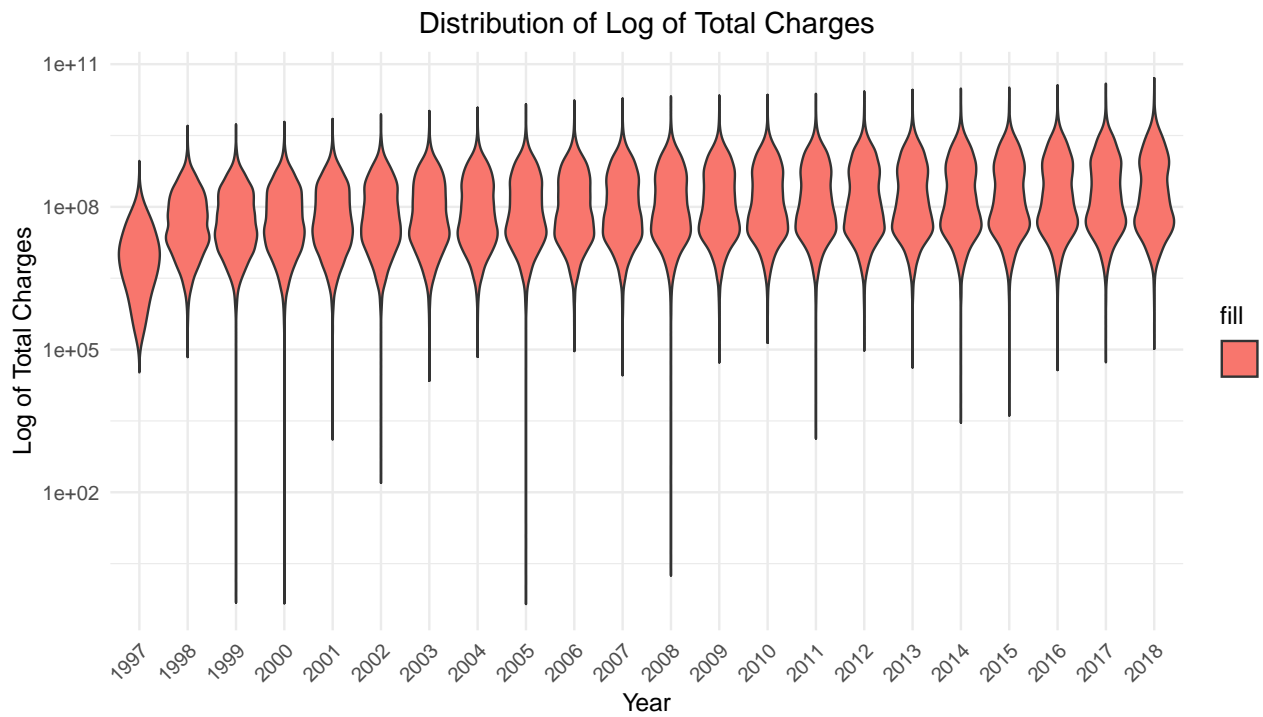
2114 hospitals filed more than one report per year.
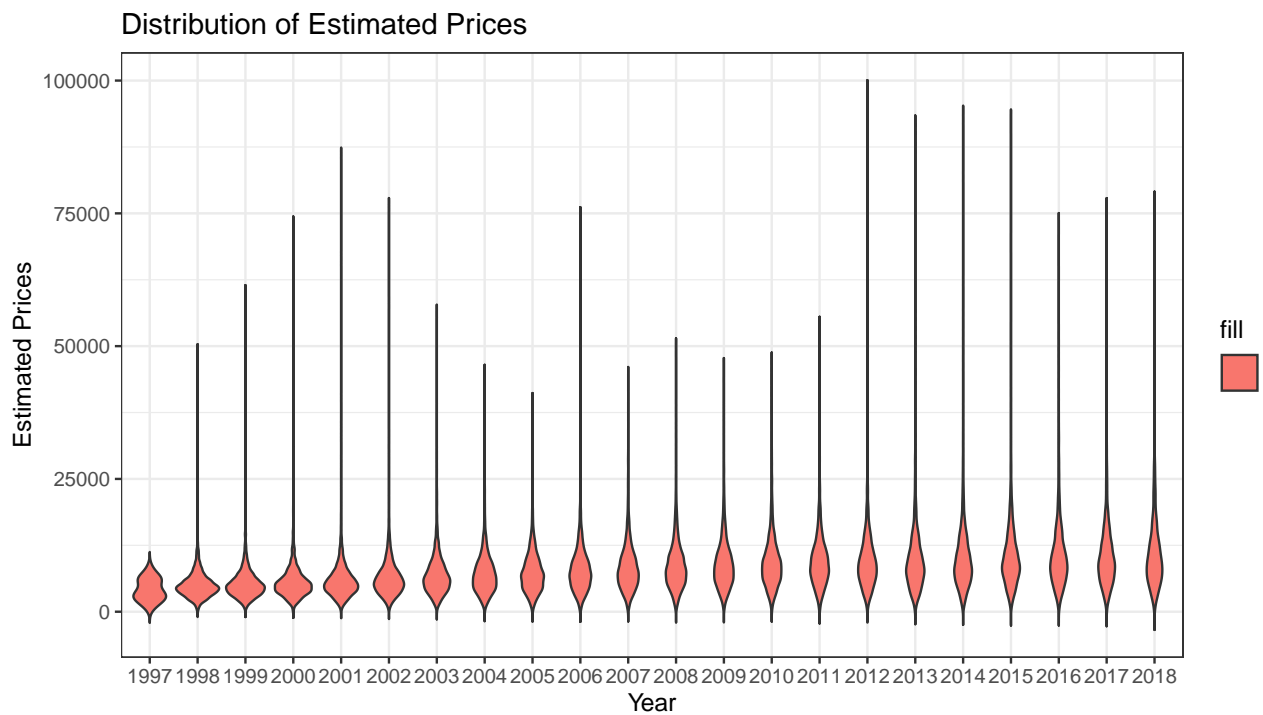
Number of Hospitals with Multiple Reports

#Question 2

There are 9323 unique Medicare IDs

#Question 3

Distribution of Log of Total Charges

Question 4

Distribution of Estimated Prices

Question 5

The average price amongst penalised hospitals is 9896 and the average price amongst non-penalised hospitals is 9560.

Question 6

quartile	price0	price1
1	7684.240	8318.709
2	8510.959	8690.891
3	9856.928	10127.130
4	12355.606	12068.479

Question 7

Estimators	ATE
NN Matching, inverse variance	199.5281
NN Matching, mahalanobis	199.5281
Inverse pscore weighting	199.5281
Regression	199.5281

#Question 8

The results from the different treatment effect estimators are similar. The results using the nearest neighbour matching methods are the same using both inverse variance distance and Mahalanobis distance at 199.5281. The results using inverse propensity weight and regression are more different at 161.7769 and 187.2840 respectively.

#Question 9

#Question 10 Working with this dataset was interesting. I learned more about applying the concepts we learned in class and was able to get more comfortable using R. However, it was confusing at times as I am still unclear about the codes to find ATE and struggled to write the codes to get to the required answers.