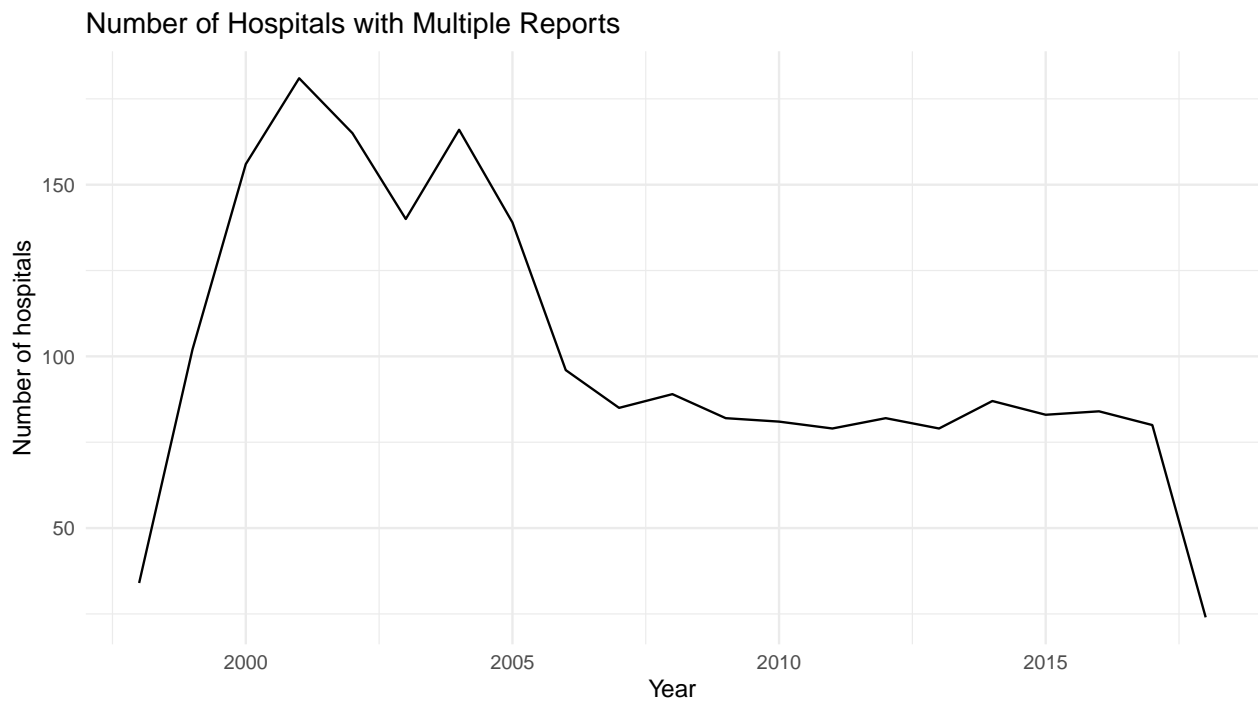


Homework 2 - Research in Health Economics

Ammarah Ahmed

1 Question 1

2114 hospitals filed more than one report per year.



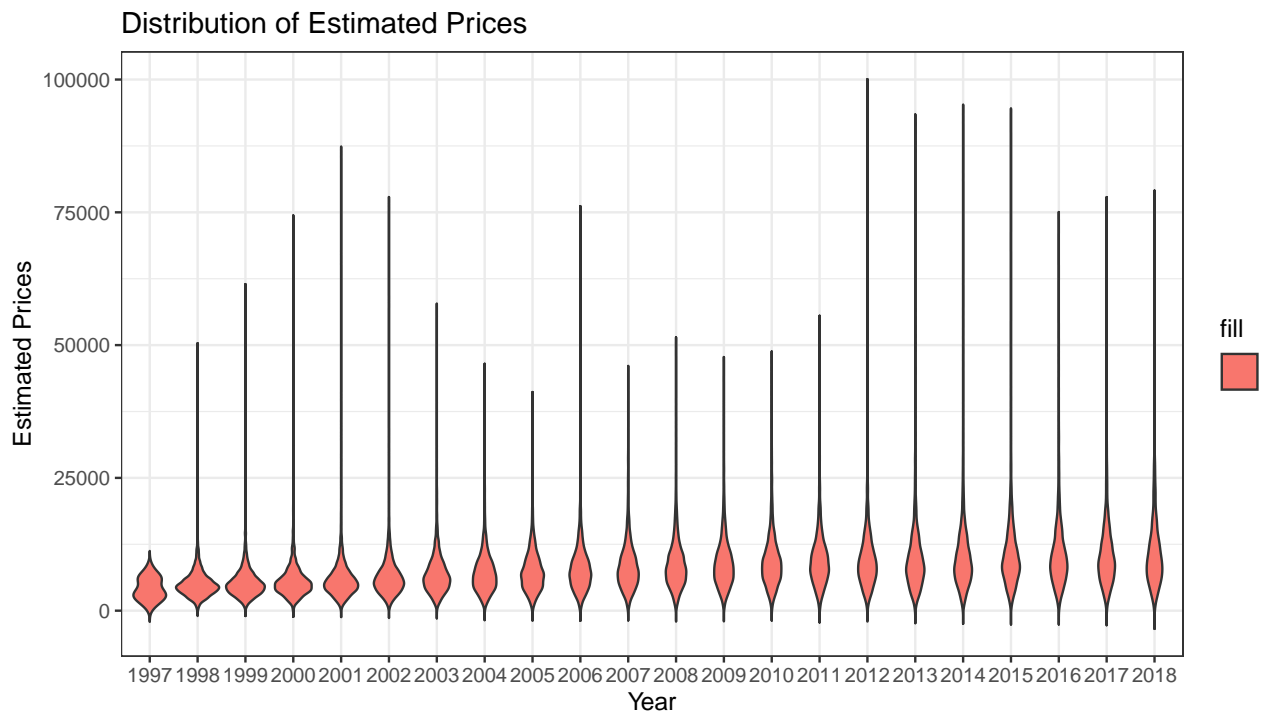
2 Question 2

There are 9323 unique Medicare IDs

3 Question 3



4 Question 4



5 Question 5

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

6 Question 6

Table 1: Average Price for Penalised and Non-Penalised Hospitals

Quartile	Average Price for Non-Penalised Hospitals	Average Price for Penalised Hospitals
1	7,684.240	8,318.709
2	8,510.959	8,690.891
3	9,856.928	10,127.130
4	12,355.606	12,068.479

7 Question 7

Table 2: Average Treatment Effect

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

8 Question 8

The results from the different treatment effect estimators are exactly the same at 199.5281. This is likely because of the use of dummy variables to define the quartiles based on hospital bed sizes.

9 Question 9

I do not think the results here show a causal effect of penalty on price. This is because there could be other factors affecting hospital prices which have not been taken into consideration in this test.

10 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.