Homework 4

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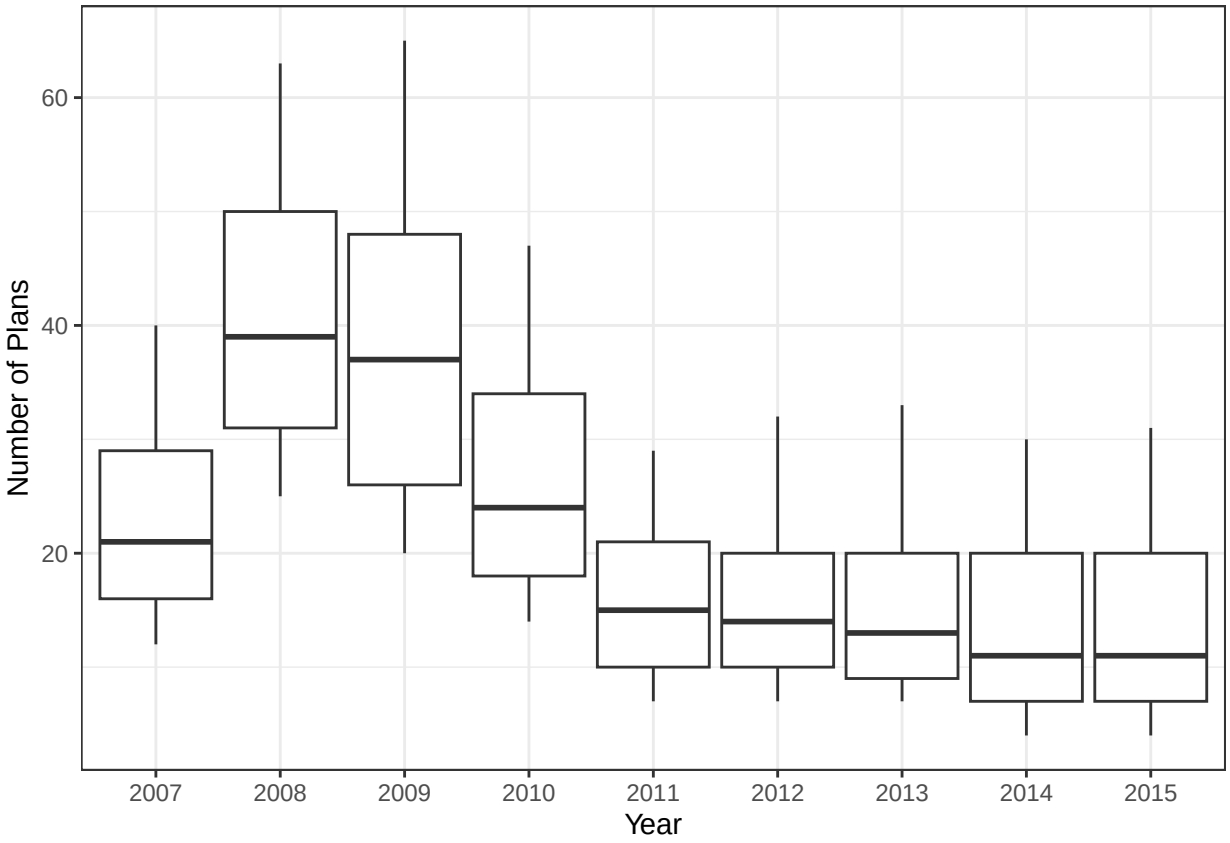
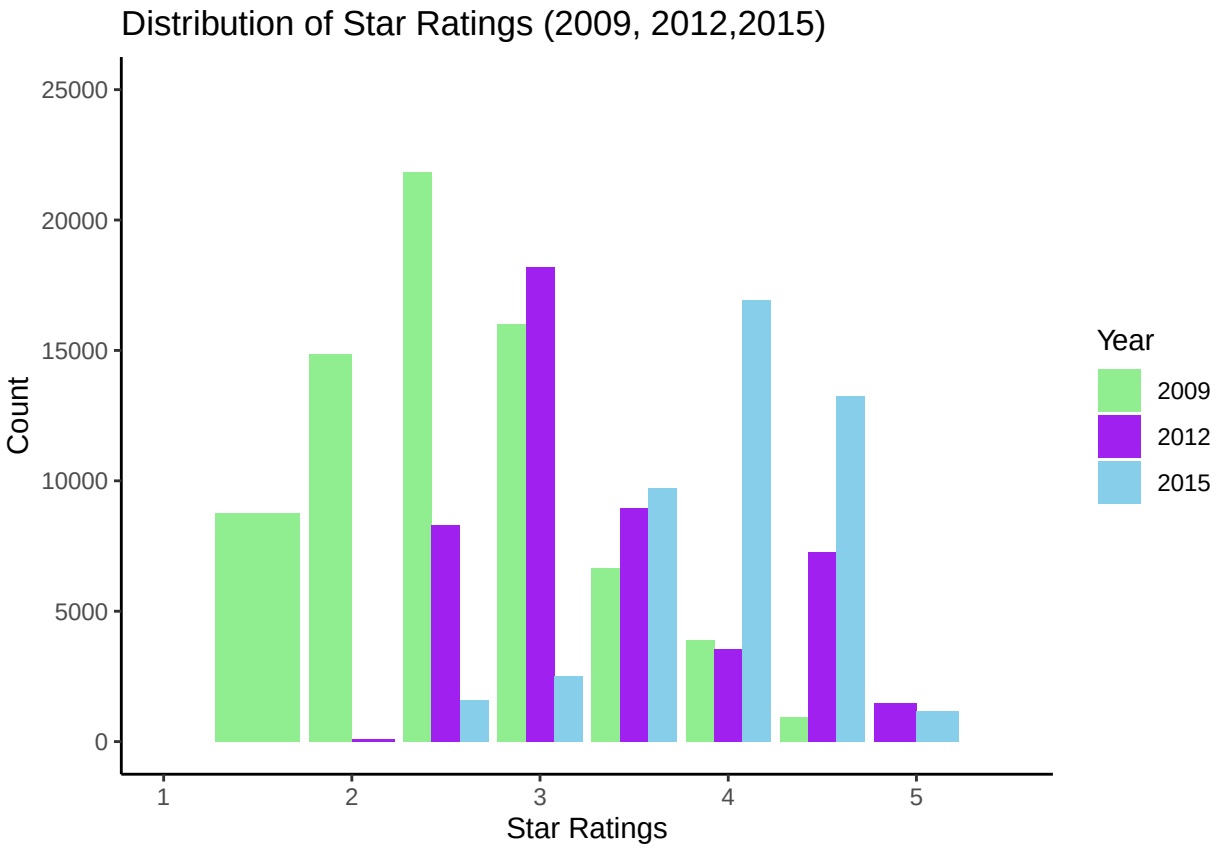
7 April 2023

Question 1



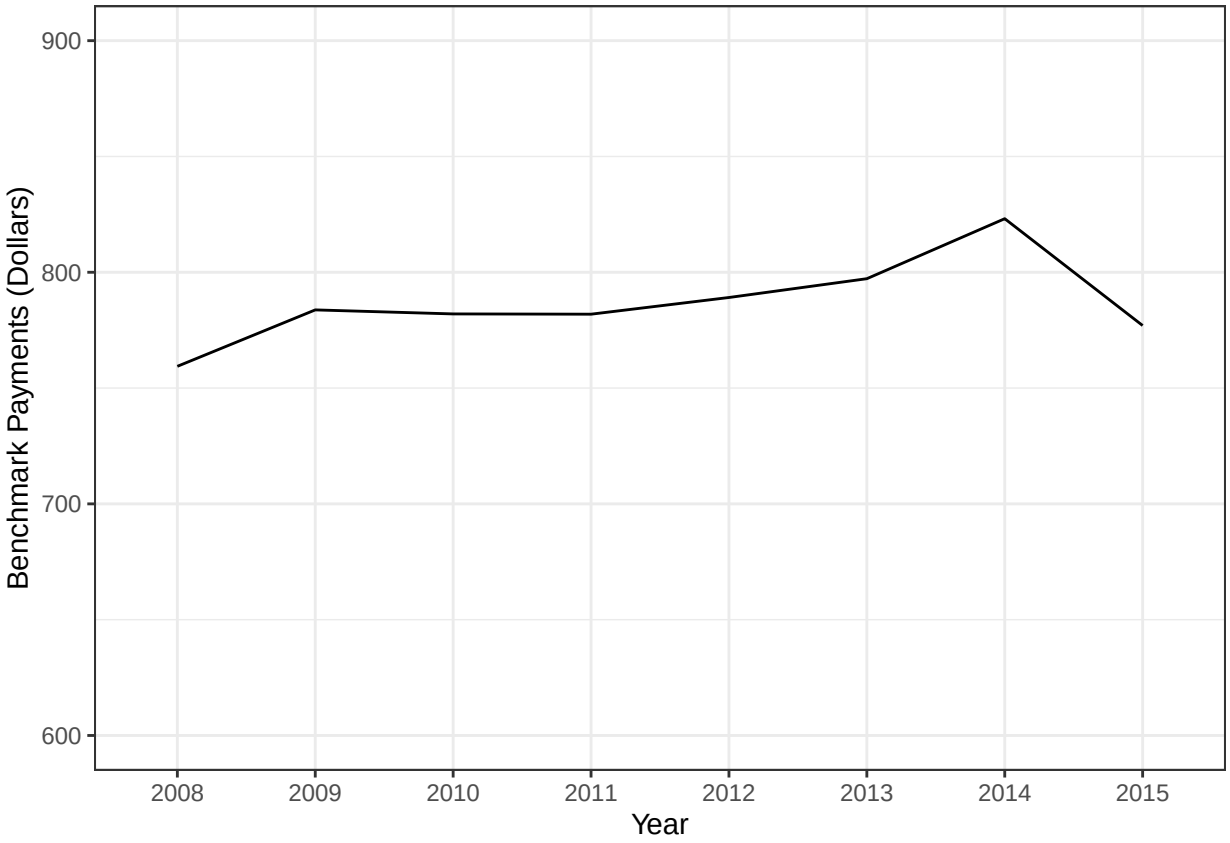
These ranges of plan counts seems sufficient - I assumed plans would be in the 20-50 range.

Question 2



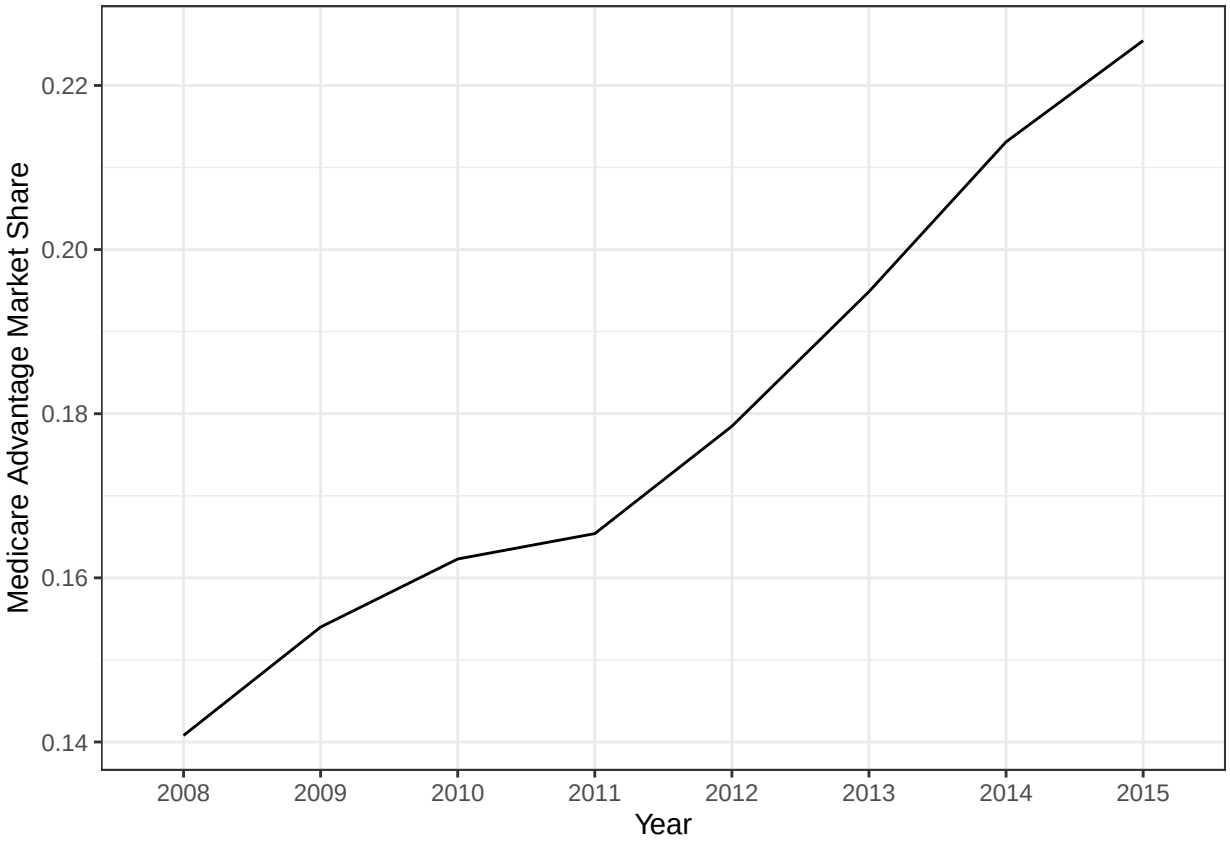
Over time, the distribution of higher star ratings (ratings of 4-5) has increased. Over the years, there are fewer low ratings and a higher concentration of high ratings.

Question 3



Over the years, the average benchmark payment has risen and dipped,overall decreasing to ~$780.

Question 4



The share of Medicare Advantage has increased in popularity, gradually increasing from 2008 to 2015. This inversely correlates with the benchmark payments.

Question 5

```
## # A tibble: 4 x 2
##   Star_Rating rounded
##         <dbl>   <dbl>
## 1         3      2278
## 2         3.5    1157
## 3         4       767
## 4         4.5       0
```

Question 6

Estimates

Star 3.0

Star 3.5

Star 4.0

Star 4.5

Treatment

0.006

−0.005

−0.006

0.003

(0.003)

(0.002)

(0.002)

(0.002)

score

−0.051

0.039

0.061

−0.070

(0.018)

(0.015)

(0.014)

(0.020)

N

1953

1578

1286

573

R^2

0.01

0.00

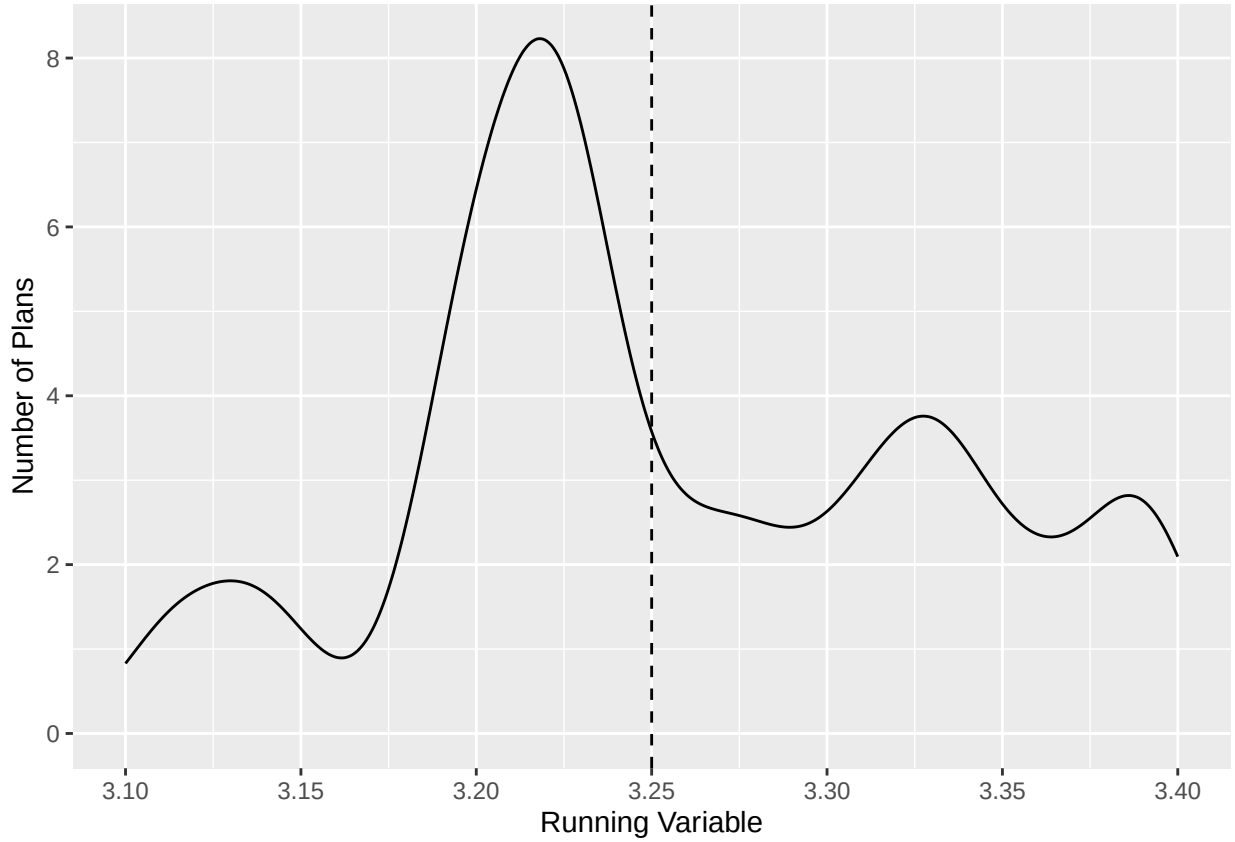
0.02

0.02

Question 7

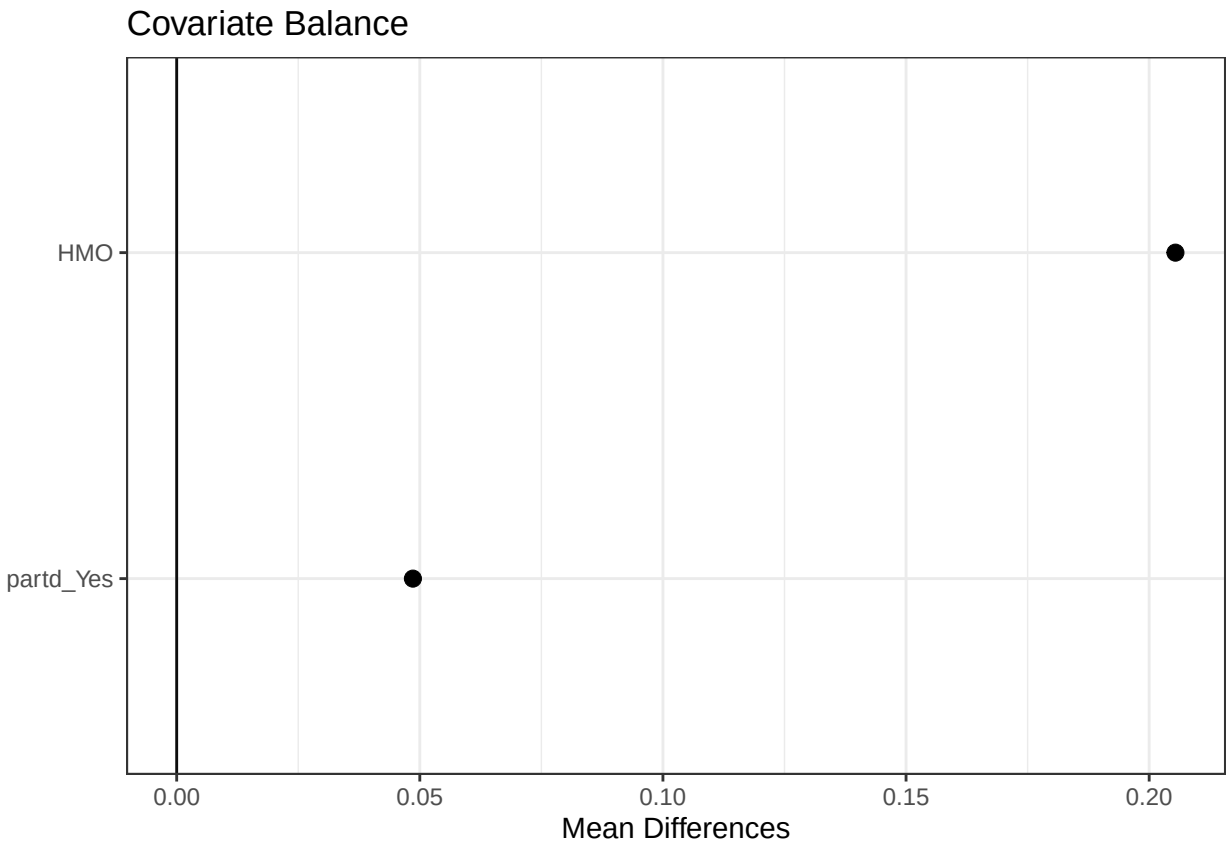
The findings are very sensitive to the choice of bandwidth. Even incremental changes in bandwidth result in large changes to the star rating effect on enrollments. Unfortunately, I could not summarize my results in a graph but above are the RD estimator results for the comparisons.

Question 8



The distribution of the running variable before and after the relevant threshold values seems to not change drastically. It was a lor wider before, but I do not believe contracts appear to manipulate the running variable.

Question 9


Covariate Balance
HMO
partd_Yes
0.00
0.05
0.10
0.15
0.20
Mean Differences

Question 10

With my results in ATE 1-4, and predictions for question 5, I predict that increasing star ratings generally lead to increases in enrollments.