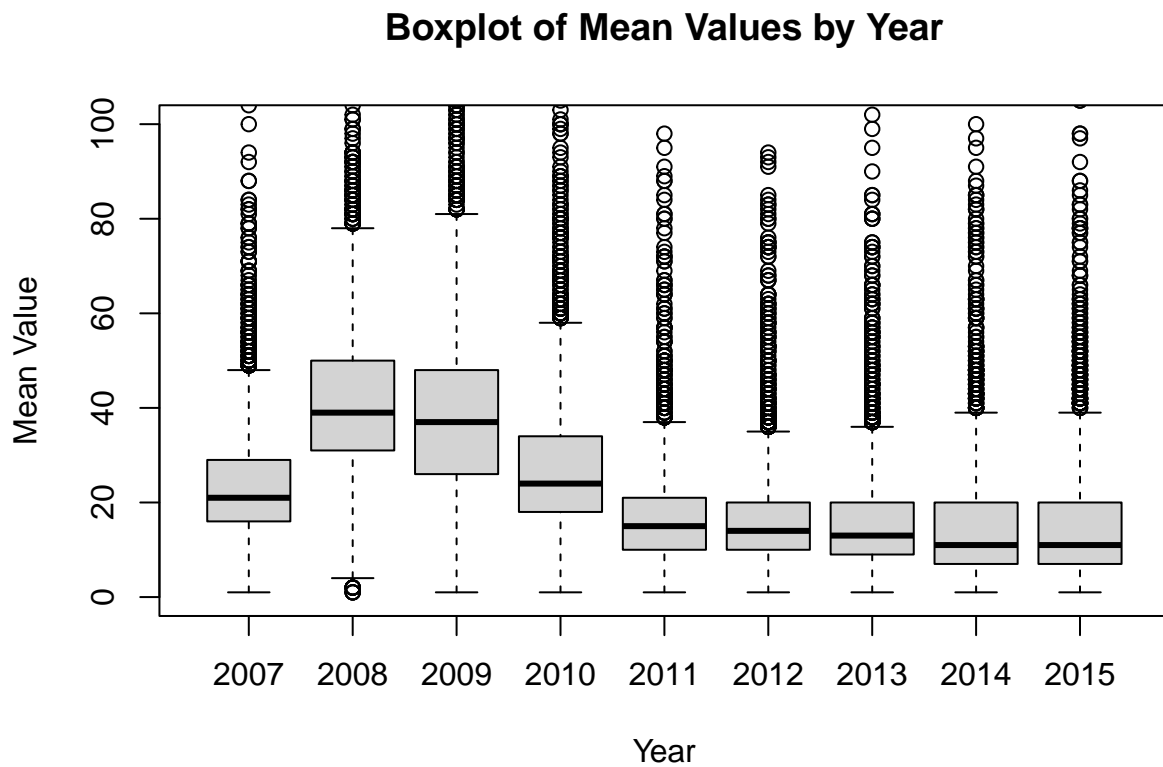


470 Homeowrk 4

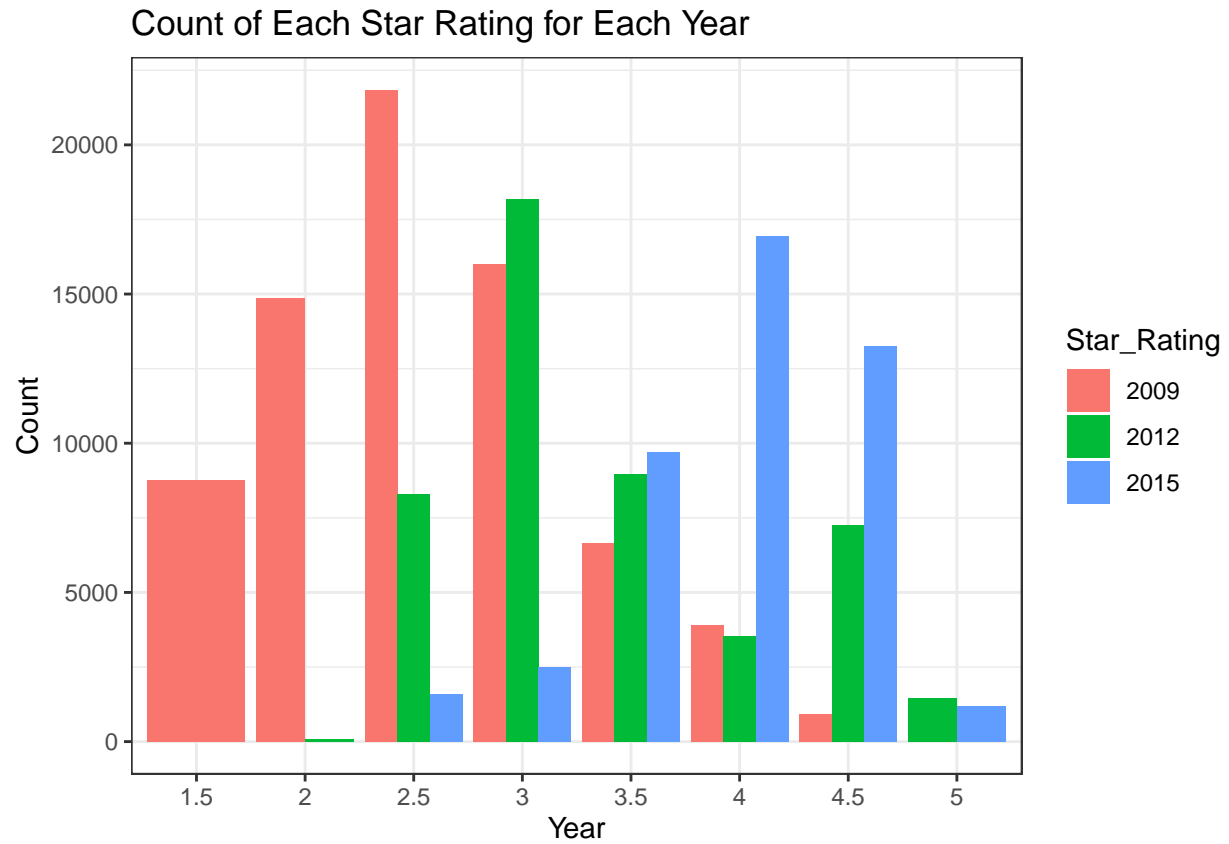
Sam Cohen

2023-03-29

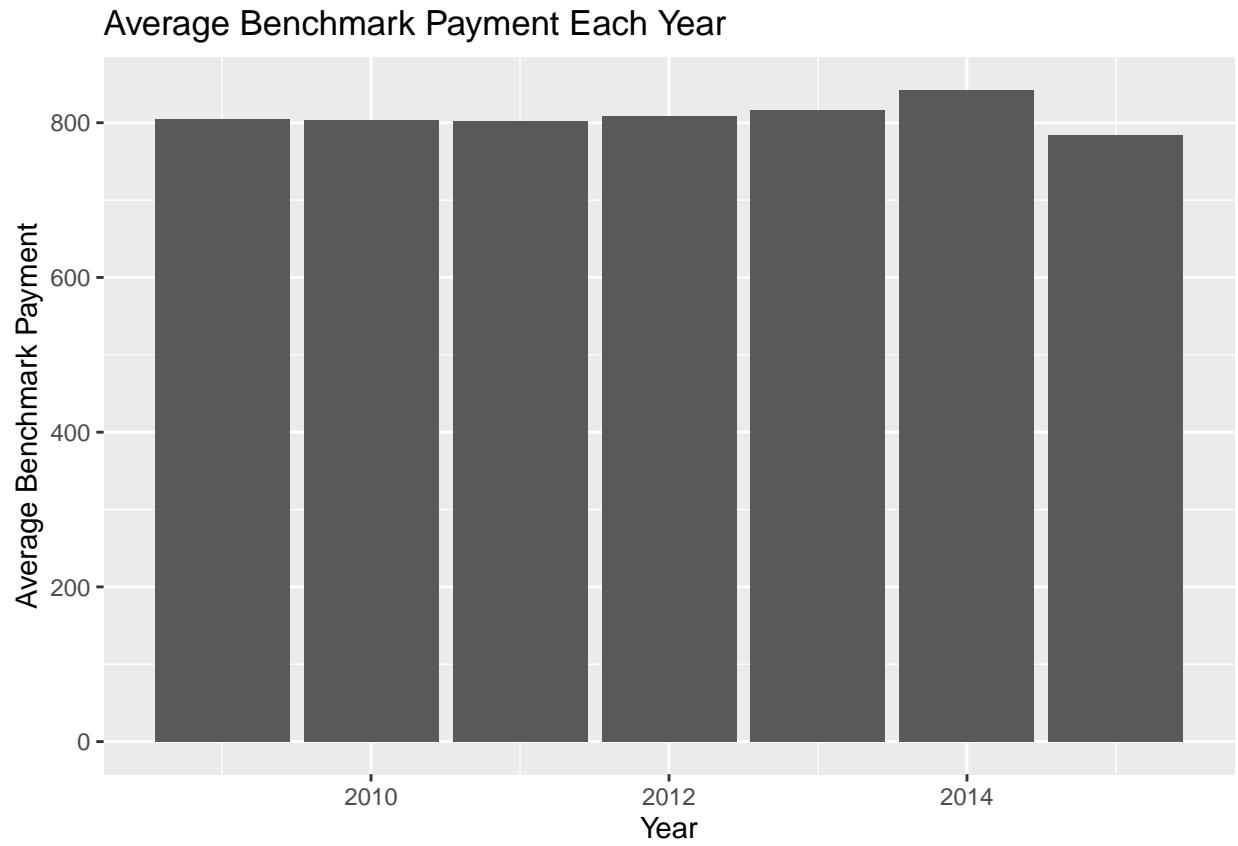
1



This seems like far too many plans. I most likely did something wrong, but if I did not, I know there is some recent research indicating that these are far too many plans available and would likely cause some choice overload.

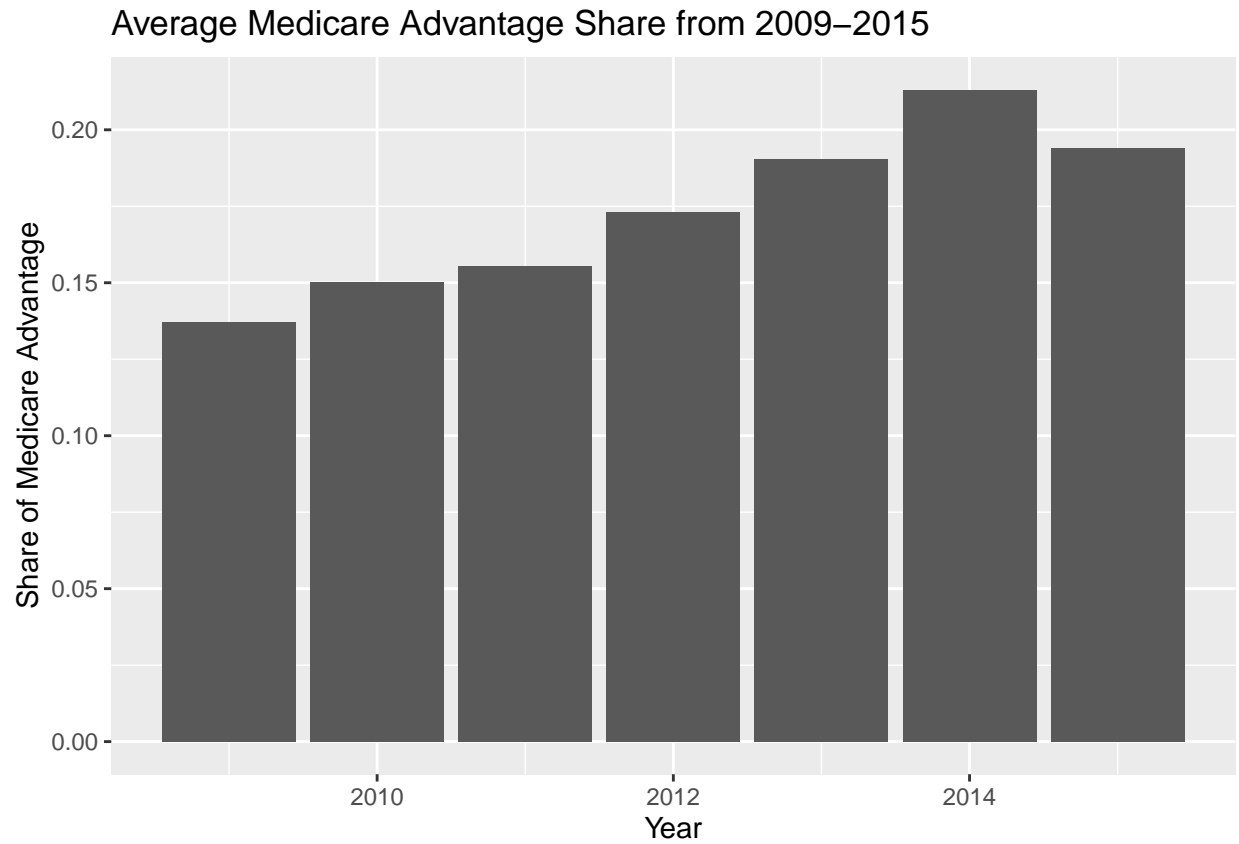


As time goes on, the count of 3.5 plans and higher increase. Overall, this data seems to indicate the average star rating has increased over this time.



From my graph, it seems the MA rate for benchmark payments has not changed very much over the years, but there was a slight increase in the trend of the payments.

4



This data shows that the Medicare Advantage has increased in popularity over the years, directly correlating with the change in payments.

ATE Questions

1

Var1	Freq
1.5	8764
2	14871
2.5	21850
3	16001
3.5	6662
4	3889
4.5	937

	Star Rating 2.5	Star Rating 3	Star Rating 3.5	Star Rating 4
Treatment Effect	486.248 (35.799)	-98.334 (94.940)	348.635 (84.448)	681.396 (175.144)
Num.Obs.	3747	10 620	2788	2094
R2	0.082	0.005	0.007	0.015
R2 Adj.	0.081	0.005	0.006	0.013
AIC	53 639.5	178 995.9	47 519.0	38 403.6
BIC	53 670.6	179 032.2	47 548.7	38 431.8
Log.Lik.	-26 814.749	-89 492.930	-23 754.515	-19 196.808
F	111.055	17.967	6.257	10.439
RMSE	310.25	1105.32	1213.58	2318.30

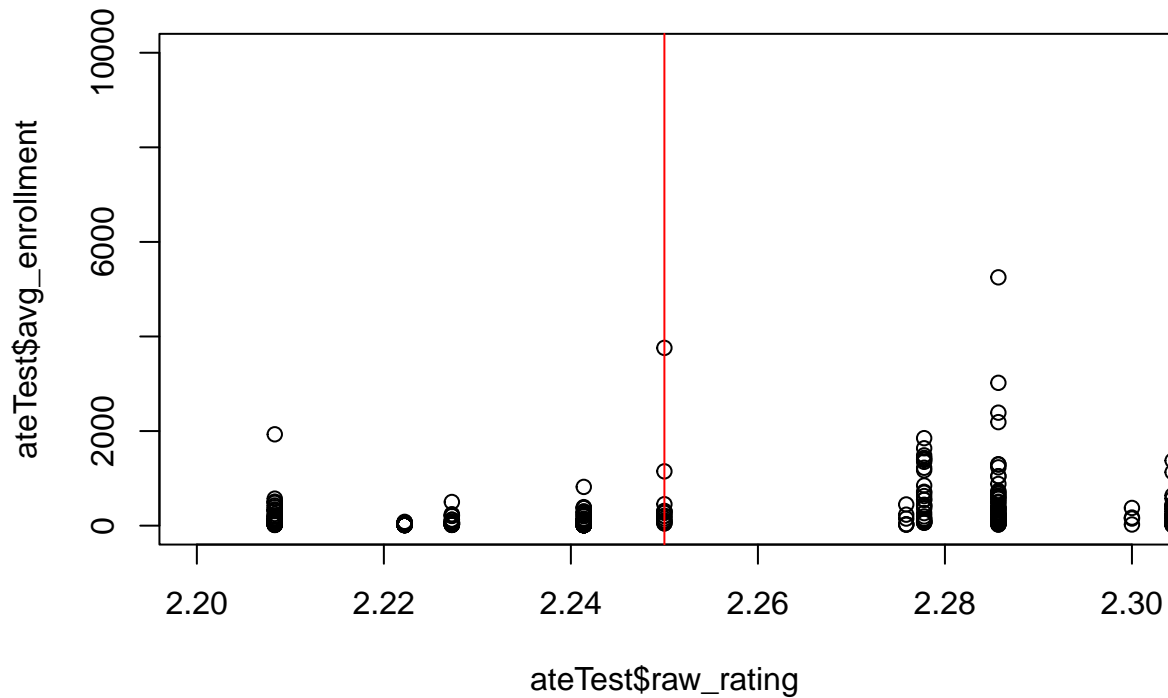
2

3

Judging by how much the estimator changes in each graph, each bandwidth seems to have significant impacts on the estimate. To see graphs please see other file labeled ATE#3 graphs in the repo.

4

Judging from the plot, it does seem that contracts are planned to reach the threshold for the next jump and that is all. As you can see, there are many plans here right at 2.25, thus rounding up to 2.5 rather than 2.



5

From the data presented, it does not seem that there is any significant difference between plan type or medicare coverage, at least between 2.1 and 2.4

```
##
##           above below
##   No      113  7491
##   Yes      457  7749
```

```
##
##           above below
##   HMO/HMOPOS  285  1357
```

6

Overall, it does seem that being rounded up has a positive effect on enrollment. This also holds up when considering I could not find any significant differences in the types of plans being offered near the thresholds, which leaves one of the only contributing factors to be the rounding. This is also consistent throughout different cutoffs and bandwidths. Insurers seem to know this as well and tries to get right at the cutoff to round up, so they appear to have higher quality than they may actually have, and thus get extra enrollment from their inflated star rating.