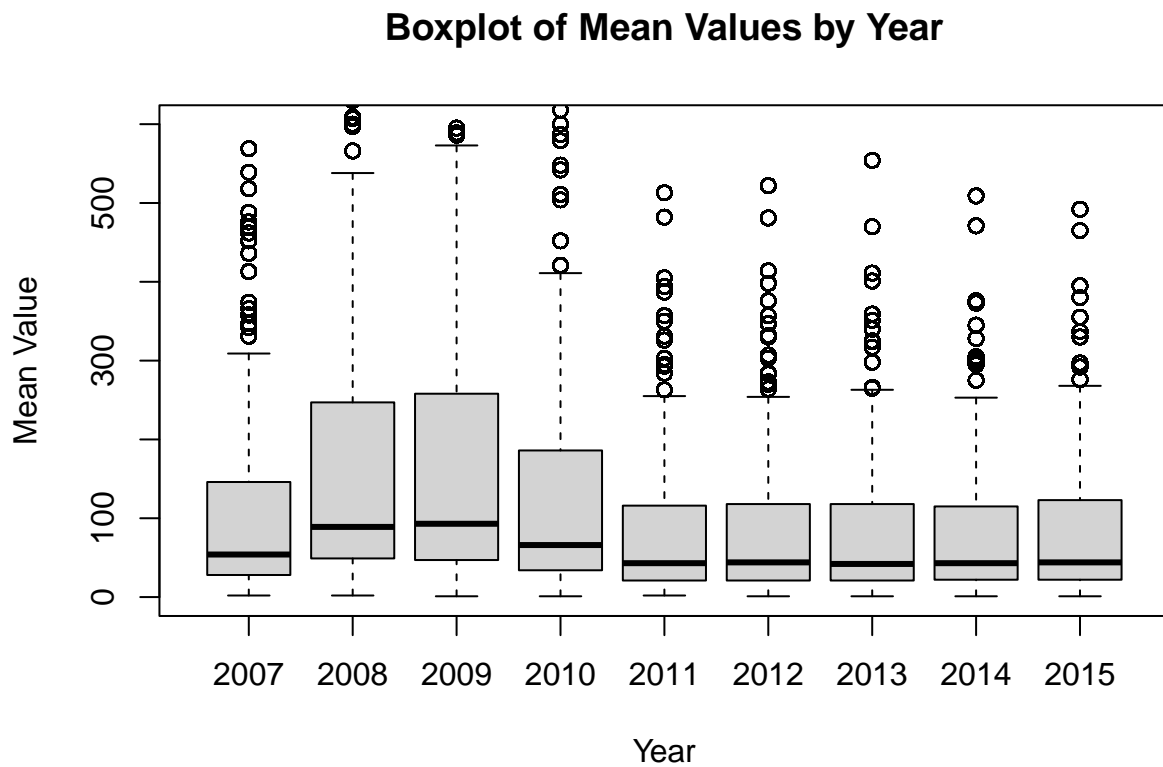


470 Homeowrk 4

Sam Cohen

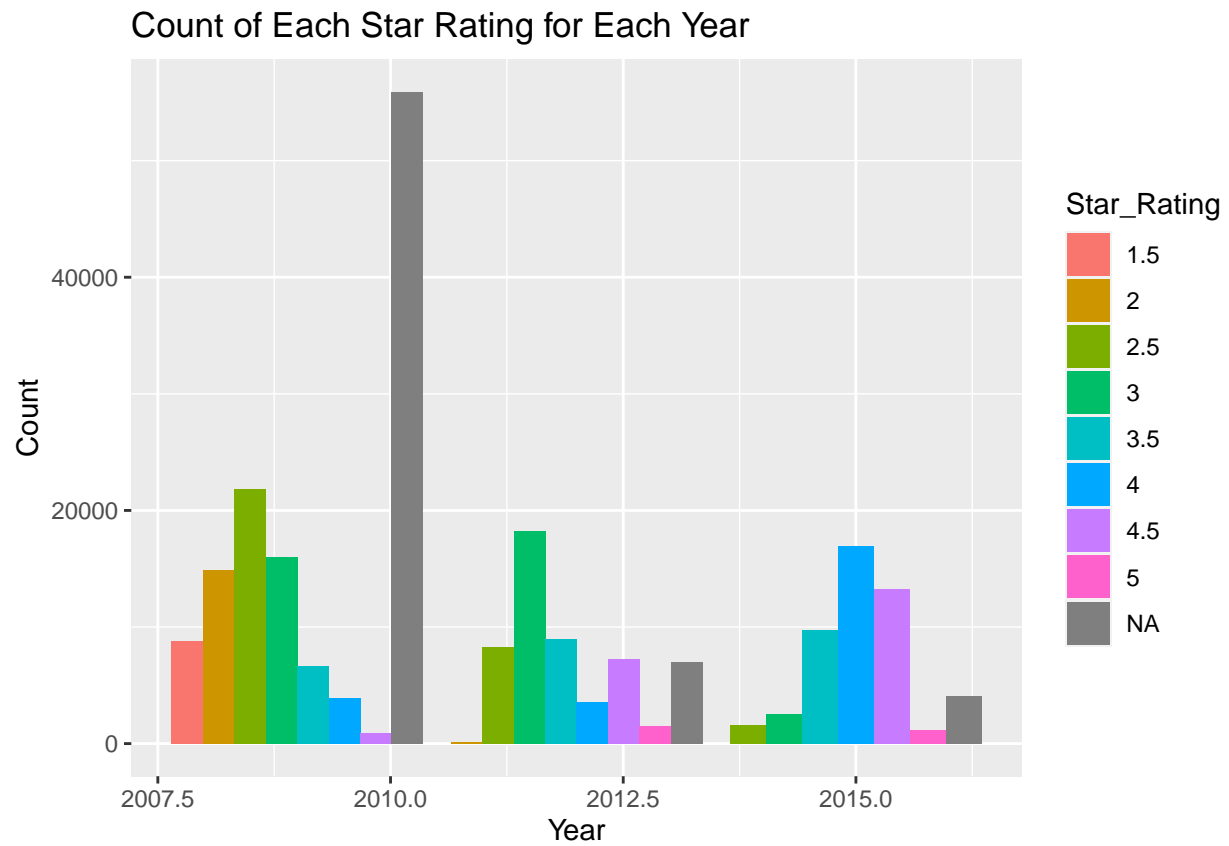
2023-03-29

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.

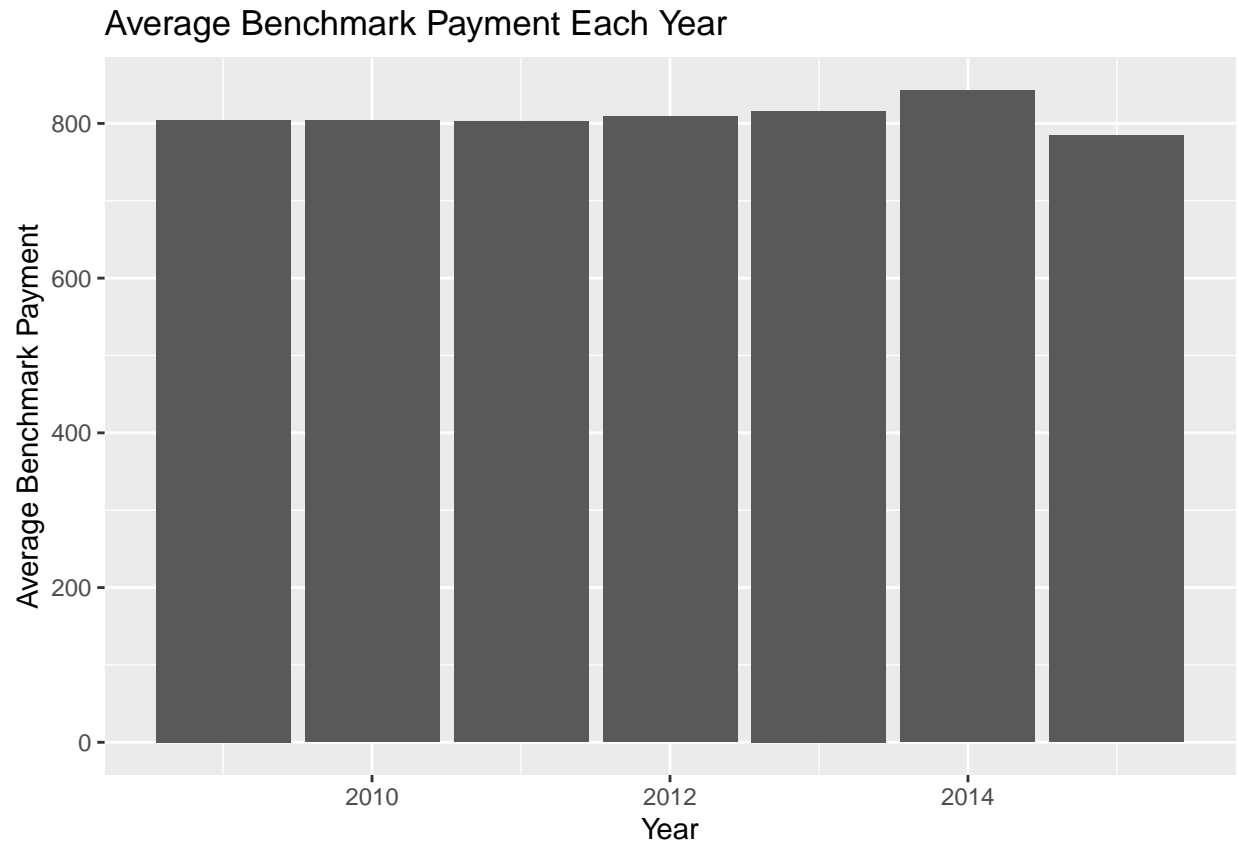
2



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.

3

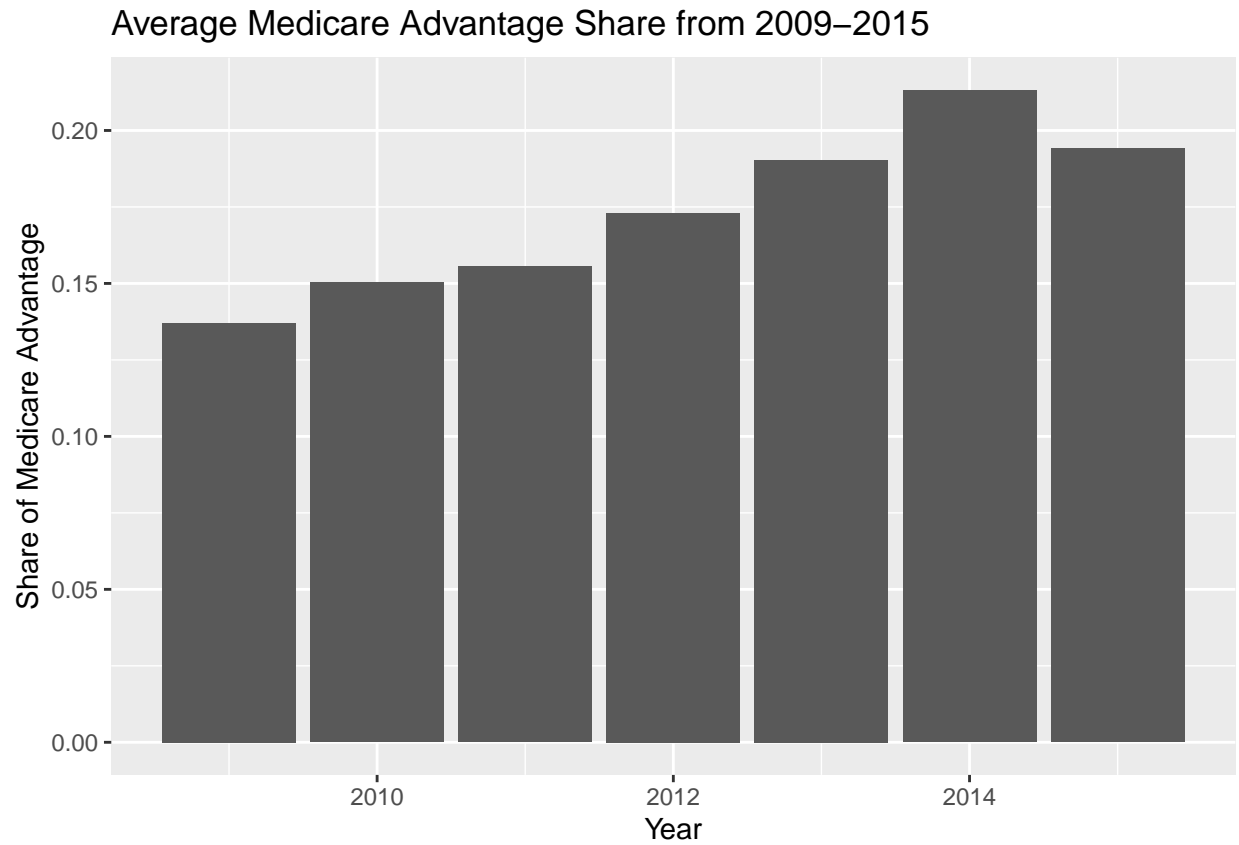
```
## Warning: Removed 120 rows containing non-finite values ('stat_summary()').
```



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

```
## Warning: Removed 4815 rows containing non-finite values ('stat_summary()').
```



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	7891
1.5	6221
2	22650
2.5	51055
3	13942
3.5	7342
4	1826
4.5	0
5	0

2

```
##          Length Class  Mode
## Estimate    4      -none- numeric
```

```

## bws      4      -none- numeric
## coef     3      -none- numeric
## se       3      -none- numeric
## z        3      -none- numeric
## pv       3      -none- numeric
## ci       6      -none- numeric
## beta_Y_p_l 2      -none- numeric
## beta_Y_p_r 2      -none- numeric
## V_cl_l   4      -none- numeric
## V_cl_r   4      -none- numeric
## V_rb_l   4      -none- numeric
## V_rb_r   4      -none- numeric
## N        2      -none- numeric
## N_h      2      -none- numeric
## N_b      2      -none- numeric
## M        2      -none- numeric
## tau_cl   2      -none- numeric
## tau_bc   2      -none- numeric
## c        1      -none- numeric
## p        1      -none- numeric
## q        1      -none- numeric
## bias     2      -none- numeric
## kernel   1      -none- character
## all      0      -none- NULL
## vce      1      -none- character
## bwselect 1      -none- character
## level    1      -none- numeric
## masspoints 1      -none- character
## rdmodel  1      -none- character
## beta_covs 0      -none- NULL
## call     9      -none- call

```

```

##      Length Class  Mode
## Estimate 4      -none- numeric
## bws      4      -none- numeric
## coef     3      -none- numeric
## se       3      -none- numeric
## z        3      -none- numeric
## pv       3      -none- numeric
## ci       6      -none- numeric
## beta_Y_p_l 2      -none- numeric
## beta_Y_p_r 2      -none- numeric
## V_cl_l   4      -none- numeric
## V_cl_r   4      -none- numeric
## V_rb_l   4      -none- numeric
## V_rb_r   4      -none- numeric
## N        2      -none- numeric
## N_h      2      -none- numeric
## N_b      2      -none- numeric
## M        2      -none- numeric
## tau_cl   2      -none- numeric
## tau_bc   2      -none- numeric
## c        1      -none- numeric
## p        1      -none- numeric

```

```
## q      1      -none- numeric
## bias   2      -none- numeric
## kernel 1      -none- character
## all    0      -none- NULL
## vce     1      -none- character
## bwselect 1     -none- character
## level  1      -none- numeric
## masspoints 1   -none- character
## rdmodel 1     -none- character
## beta_covs 0    -none- NULL
## call    9      -none- call
```

```
##          Length Class  Mode
## Estimate  4      -none- numeric
## bws       4      -none- numeric
## coef      3      -none- numeric
## se        3      -none- numeric
## z         3      -none- numeric
## pv        3      -none- numeric
## ci        6      -none- numeric
## beta_Y_p_l 2     -none- numeric
## beta_Y_p_r 2     -none- numeric
## V_cl_l    4      -none- numeric
## V_cl_r    4      -none- numeric
## V_rb_l    4      -none- numeric
## V_rb_r    4      -none- numeric
## N         2      -none- numeric
## N_h       2      -none- numeric
## N_b       2      -none- numeric
## M         2      -none- numeric
## tau_cl    2      -none- numeric
## tau_bc    2      -none- numeric
## c         1      -none- numeric
## p         1      -none- numeric
## q         1      -none- numeric
## bias      2      -none- numeric
## kernel    1      -none- character
## all       0      -none- NULL
## vce       1      -none- character
## bwselect  1     -none- character
## level     1      -none- numeric
## masspoints 1   -none- character
## rdmodel   1     -none- character
## beta_covs 0    -none- NULL
## call      9      -none- call
```

```
##          Length Class  Mode
## Estimate  4      -none- numeric
## bws       4      -none- numeric
## coef      3      -none- numeric
## se        3      -none- numeric
## z         3      -none- numeric
## pv        3      -none- numeric
## ci        6      -none- numeric
```

```

## beta_Y_p_l 2      -none- numeric
## beta_Y_p_r 2      -none- numeric
## V_cl_l      4      -none- numeric
## V_cl_r      4      -none- numeric
## V_rb_l      4      -none- numeric
## V_rb_r      4      -none- numeric
## N           2      -none- numeric
## N_h         2      -none- numeric
## N_b         2      -none- numeric
## M           2      -none- numeric
## tau_cl      2      -none- numeric
## tau_bc      2      -none- numeric
## c           1      -none- numeric
## p           1      -none- numeric
## q           1      -none- numeric
## bias        2      -none- numeric
## kernel      1      -none- character
## all         0      -none- NULL
## vce         1      -none- character
## bwselect    1      -none- character
## level       1      -none- numeric
## masspoints  1      -none- character
## rdmodel     1      -none- character
## beta_covs   0      -none- NULL
## call        9      -none- call

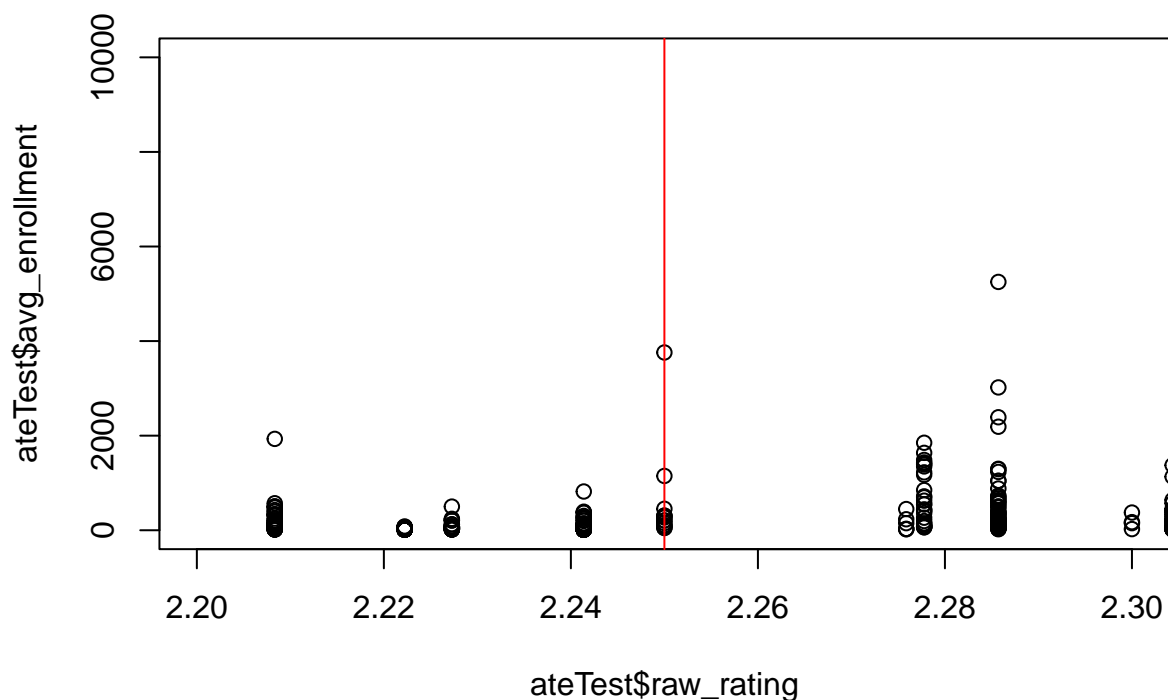
```

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
## 1876 Cost      14    6
## HMO/HMOPOS    285  1357
## Local PPO      63   249
## PFFS           0 13611
## Regional PPO  208    17
```

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

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.