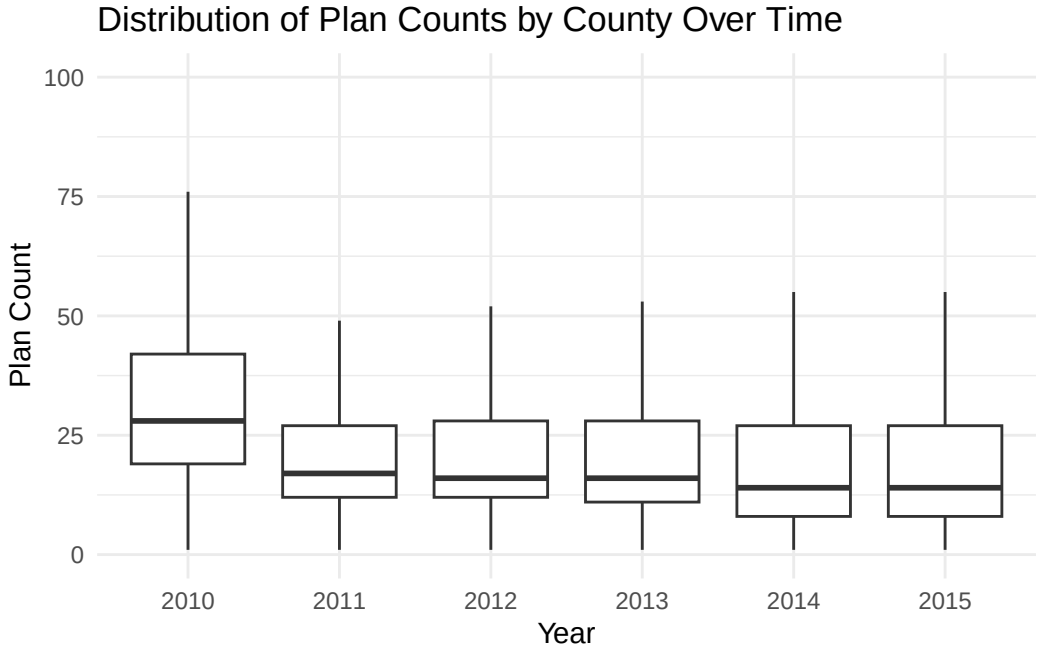
Homework4 Submission3

https://github.com/modugbe/homework4

Moyo Odugbemi

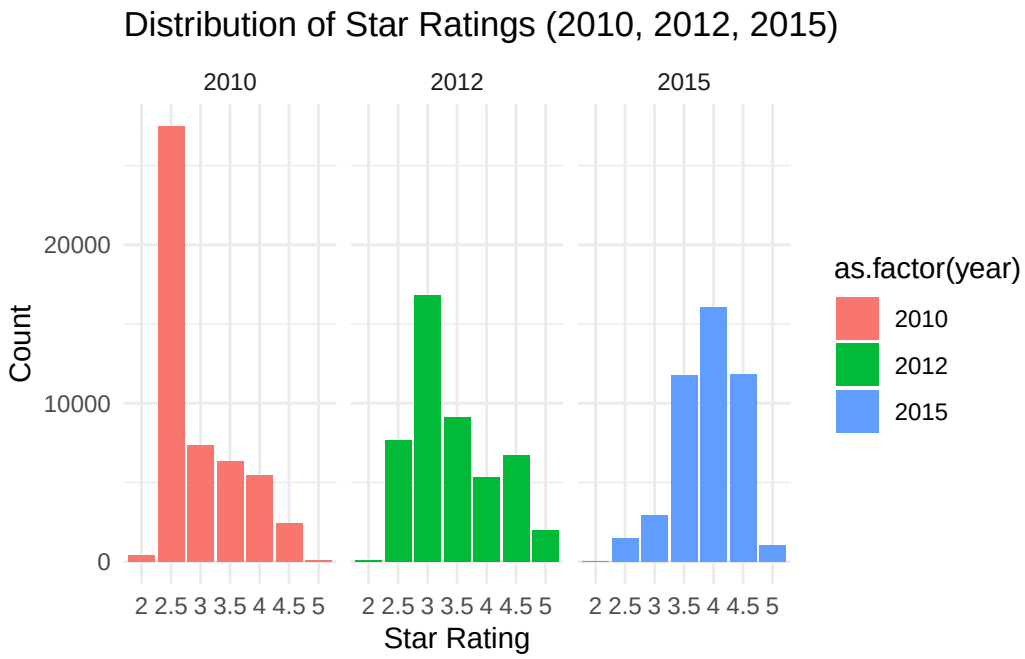
#Question 1

```
Warning: Removed 560 rows containing non-finite values (`stat_boxplot()`).
```



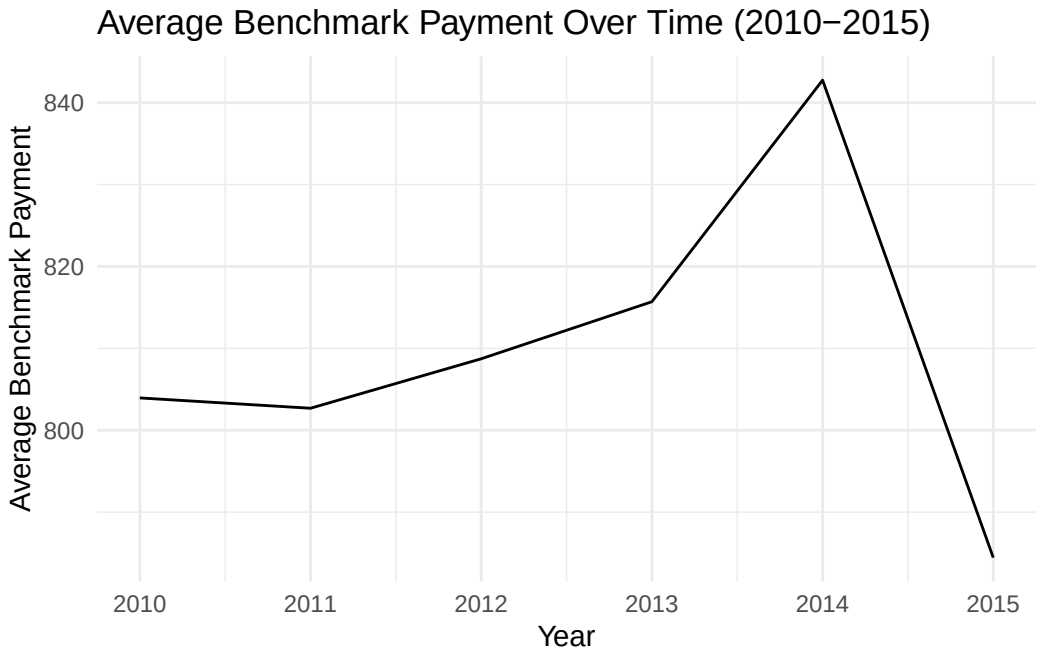
What the plot shows is that there are some counties that have higher plan counts than others in a given year. I think making a judgement on the number of plans would require knowing the population of a county which affects the number of options people would need. Plan counts are lower in subsequent years than in 2010.

#Question 2



Distribution has shifted towards higher ratings over the years. Majority started in 2010 with 2.5 stars and that has become a majority with 4.0 ratings in 2015.

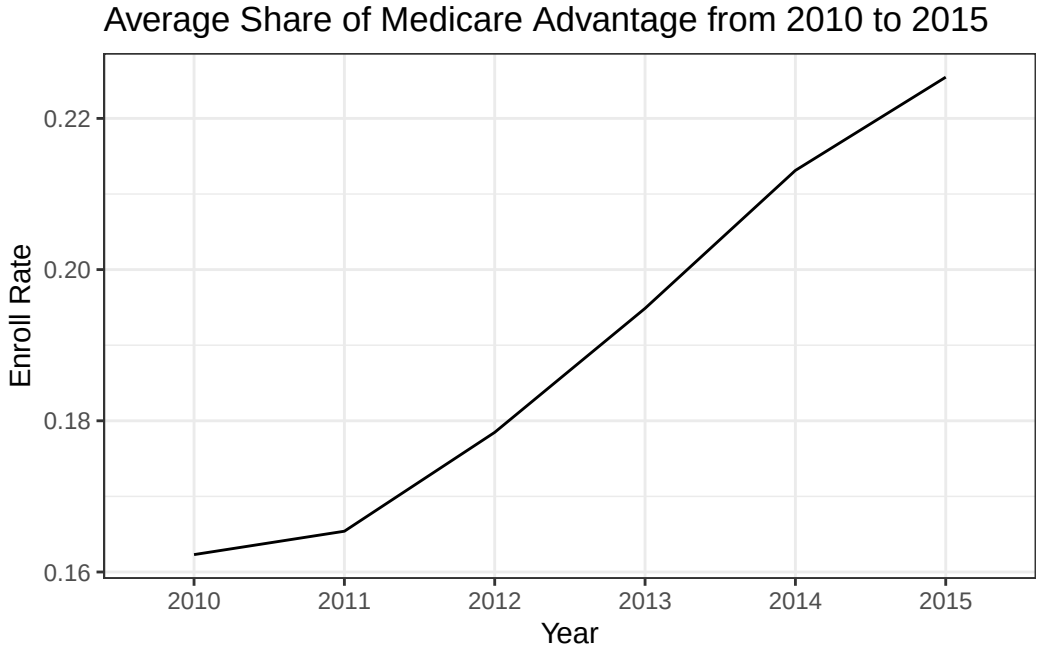
#Question 3



The average benchmark payment has decreased since 2010. Although there was a spiked increase in 2014, the total payment has changed by ‘r format(as.numeric(total_payment_increase, big.mark=“,”)

#Question 4

```
Warning: Removed 366 rows containing non-finite values (`stat_summary()`).
```



[1] 0.3425008

#Question 5

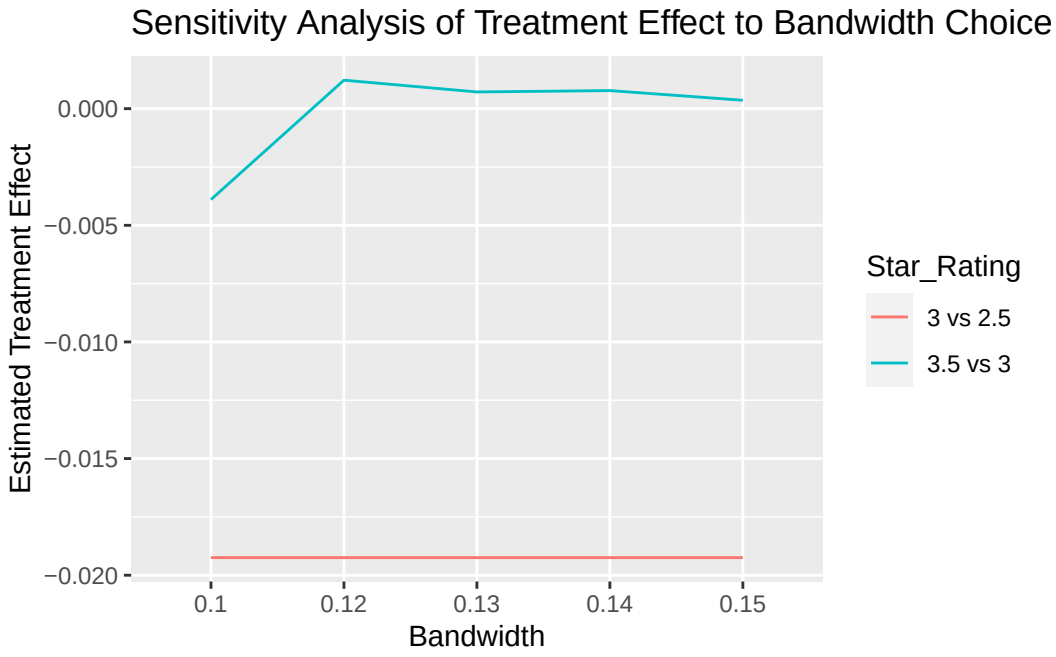
```
Warning in styling_latex_scale(out, table_info, "down"): Longtable cannot be
resized.
```

Table 1: Star Rating Counts

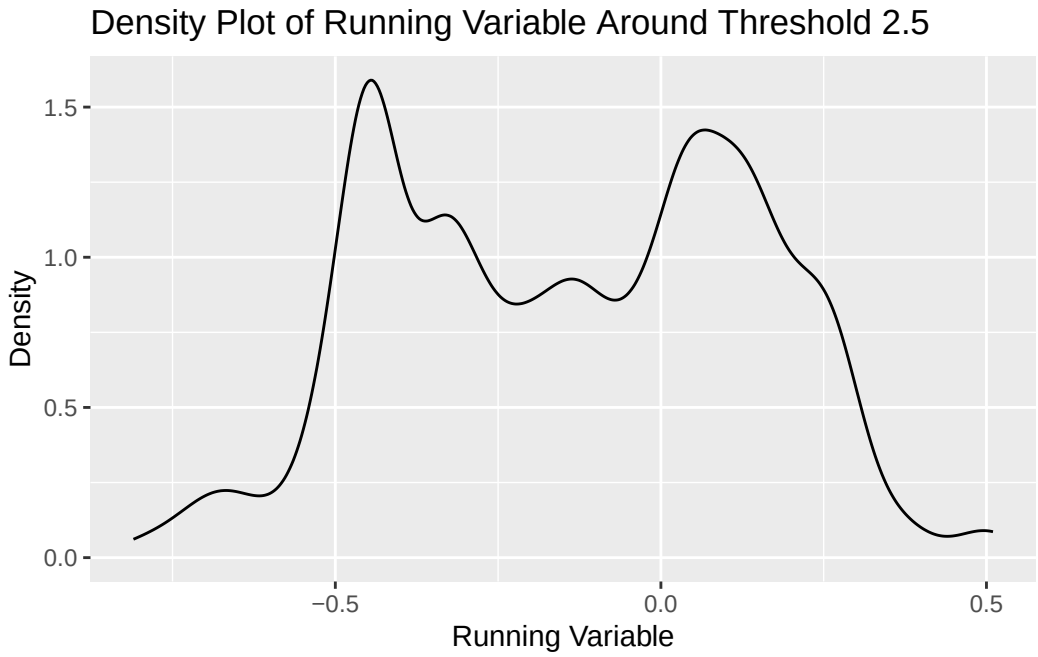
rounded_rating	n
3.0	10741
3.5	3611
4.0	1935
4.5	50

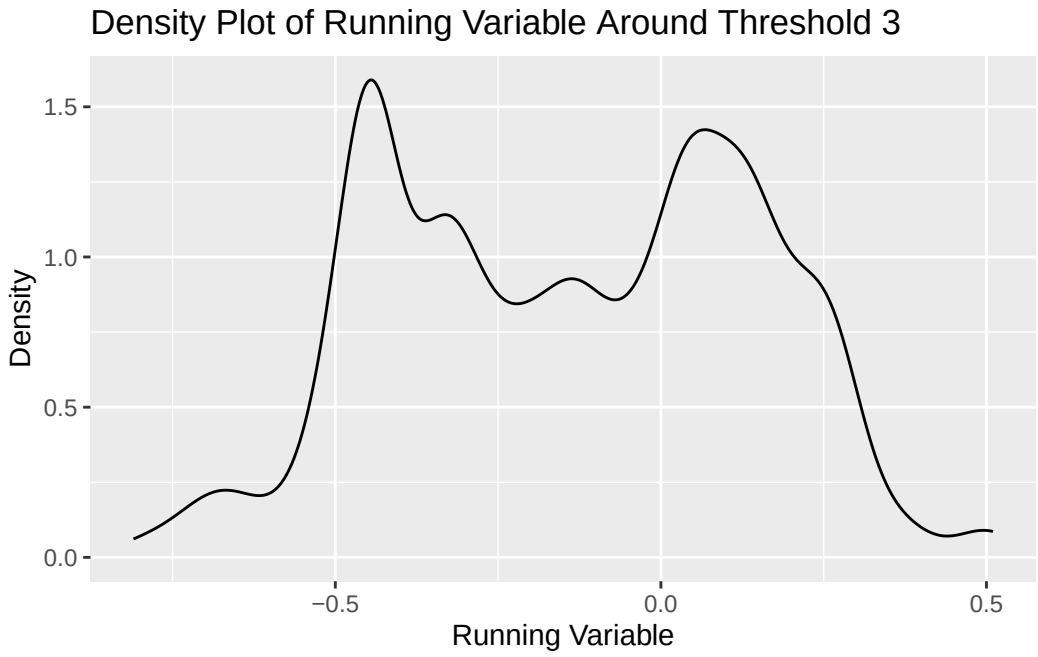
#Question 6

#Question 7


Sensitivity Analysis of Treatment Effect to Bandwidth Choice
Estimated Treatment Effect
0.000
−0.005
−0.010
−0.015
−0.020
0.1
0.12
0.13
0.14
0.15
Bandwidth
Star_Rating
3 vs 2.5
3.5 vs 3

#Question 8


Density Plot of Running Variable Around Threshold 2.5
Density
1.5
1.0
0.5
0.0
−0.5
0.0
0.5
Running Variable


Density Plot of Running Variable Around Threshold 3
Density
1.5
1.0
0.5
0.0
−0.5
0.0
0.5
Running Variable

#Question 9

#Question 10 I'm assuming that the effect of increasing a star rating will lead to an increase in enrollments. At this point, I am unable to confirm with the findings from 5-9 as I have not fully organized those results.