Empirical Assignment 3

Econ 771, Fall 2022
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1. Summary stats

Table 1 presents descriptive statistics for Medicare Part D Plans by Cohort from 2006 to 2010, a recreation of Table 1 in Ericson (2014).

2. Figure 3

Figure 1 presents the effect of the 2006 benchmark status on 2006 enrollment, a recreation of Figure 3 in Ericson (2014).

3. Figure 3

Figure 2 presents the effect of the 2006 benchmark status on 2006 enrollment with 10 bins instead of 20. Figure 3 presents the effect of the 2006 benchmark status on 2006 enrollment with 30 bins instead of 20. Changing the amount of bins does not change the trend. There is a jump in log enrollment share at the threshold, and the trends to the right and left of the threshold match in all three figures.

4. Evenly Spaced Optimal Bins

Figure 4 presents the effect of the 2006 benchmark status on 2006 enrollment with evenly spaced, optimal bins. This figure matches the figure from part 2 exactly, indicating that the optimal bins is 20.

5. Discrete Jump Test

Figure 5 shows that there is no statistical evidence of a manipulation of the running variable.

6. Recreate Table 3

Unfortunately I was unable to recreate Table 3.

7. CE Optimal Bandwidth

I do not understand how to apply the results from rdrobust to reestimate the RD results.

8. IV

Based on the regression, it appears that market share has a negative relationship with future premium

changes. As a company has more market shares, they are less likely to change their premiums in the future.

9. Comparison to Table 4

My values do not match the general trend found in Ericson (2014). I do not think I fully understand this assignment. I need to go back and reread this paper before attempting to complete the questions again.

10. Discussion

Unfortunately this is my weakest assignment to date. While the concept of RD is simple to understand, the implementation was not. I was able to learn more about how to make figures and incorporate tables neatly in Overleaf, but my programming skills are lacking in this assignment. I look forward to learning from the solutions and redoing this assignment to learn from my mistakes.

Tables and Figures

Table 1: **Descriptive Statistics of Medicare Part D Plans**

	Cohort				
	2006	2007	2008	2009	2010
Mean monthly premium	$37	$40	$36	$30	$33
	(13)	(17)	(20)	(5)	(9)
Mean deductible	$92	$114	$146	$253	$118
	(116)	(128)	(125)	(102)	(139)
Fraction enhanced benefit	0.43	0.43	0.58	0.03	0.69
Fraction of plans offered by firms already offering a plan					
....in the United States	0.00	0.76	0.98	1.00	0.97
....in the same state	0.00	0.53	0.91	0.68	0.86
Number of unique firms	51	38	16	5	6
Number of plans	1,429	658	202	68	107

Figure 1: Figure 3 Recreated

Figure 3

log enrollment share, 2006

Monthly premium - LIS Subsidy, 2006

Figure 2: Figure 3 - 10 Bins

Figure 3: 10 bins
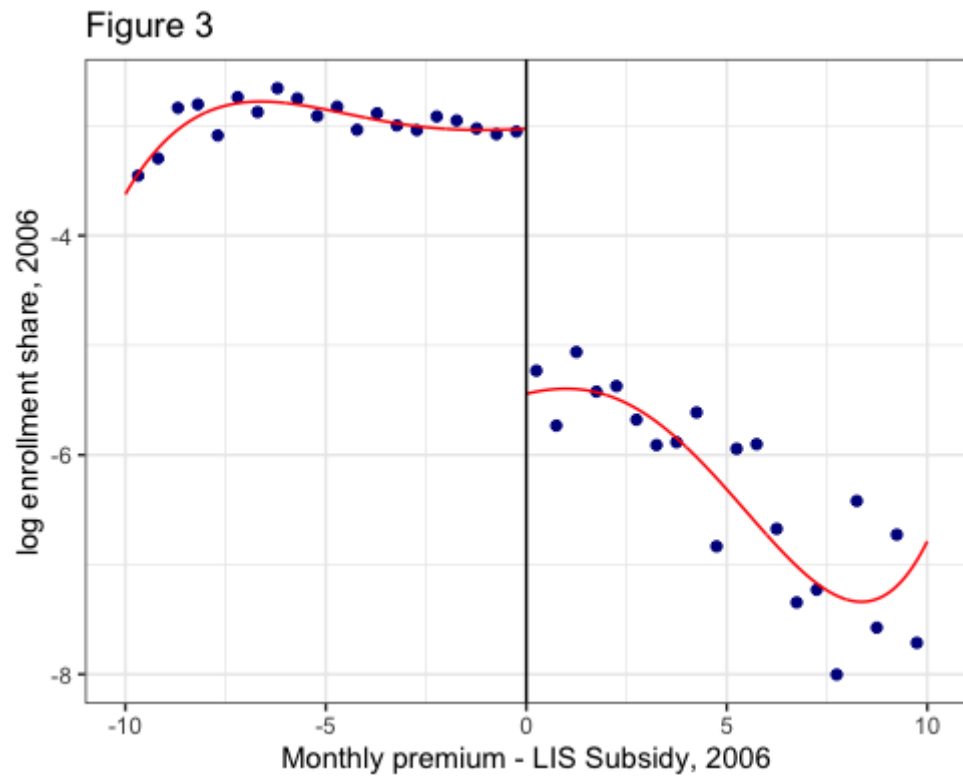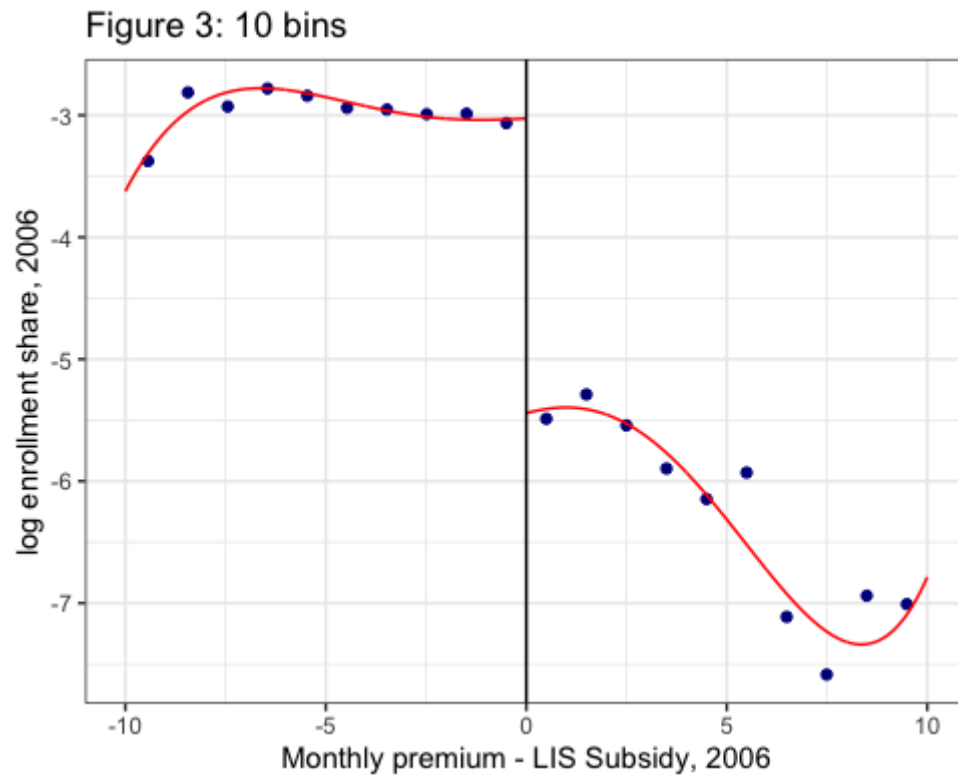
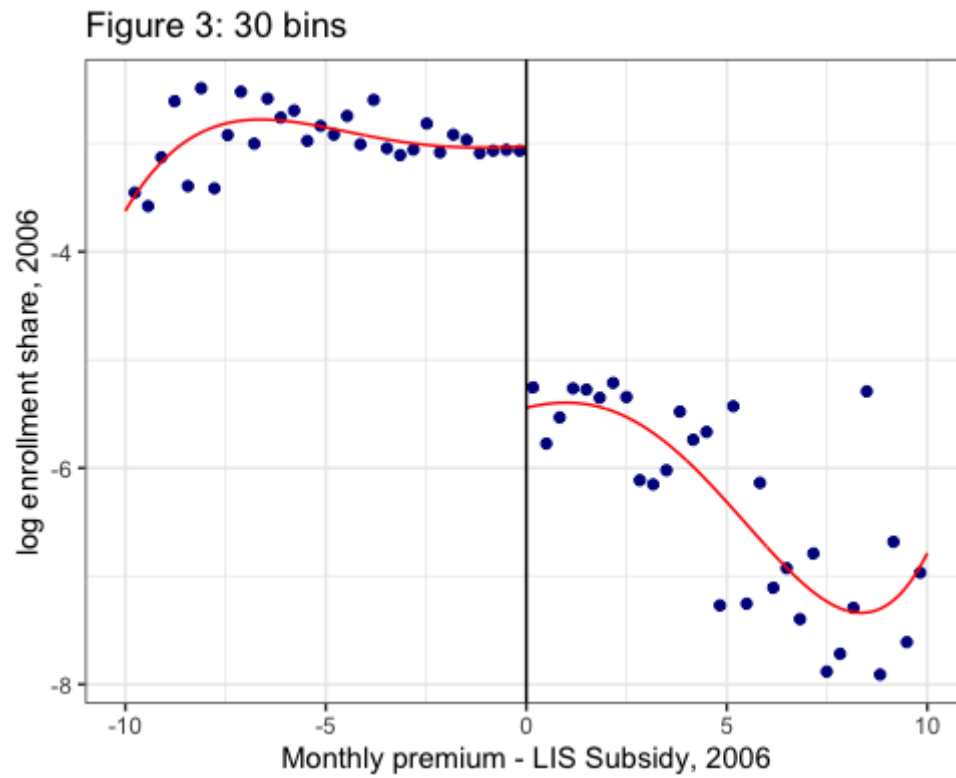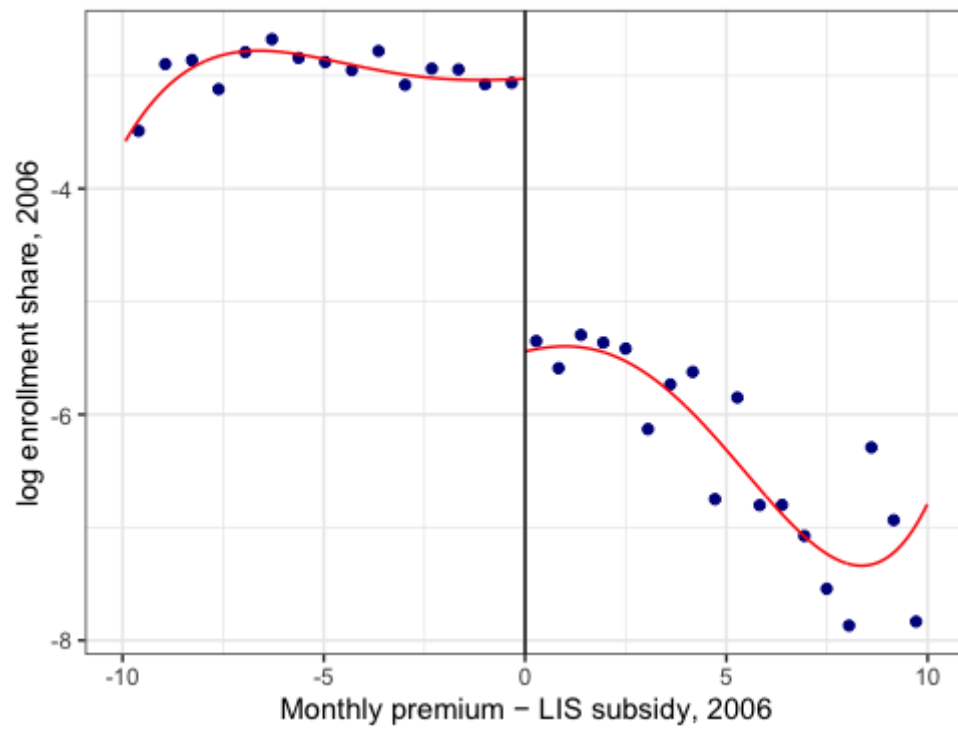Figure 3: Figure 3 - 30 Bins

Figure 3: 30 bins

Figure 4: Figure 4 - Optimal Bins

Figure 5: Figure 5 - Jump Manipulation Test