

# 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 5 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 5 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 ?? 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 (13)	\$40 (17)	\$36 (20)	\$30 (5)	\$33 (9)
Mean deductible	\$92 (116)	\$114 (128)	\$146 (125)	\$253 (102)	\$118 (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

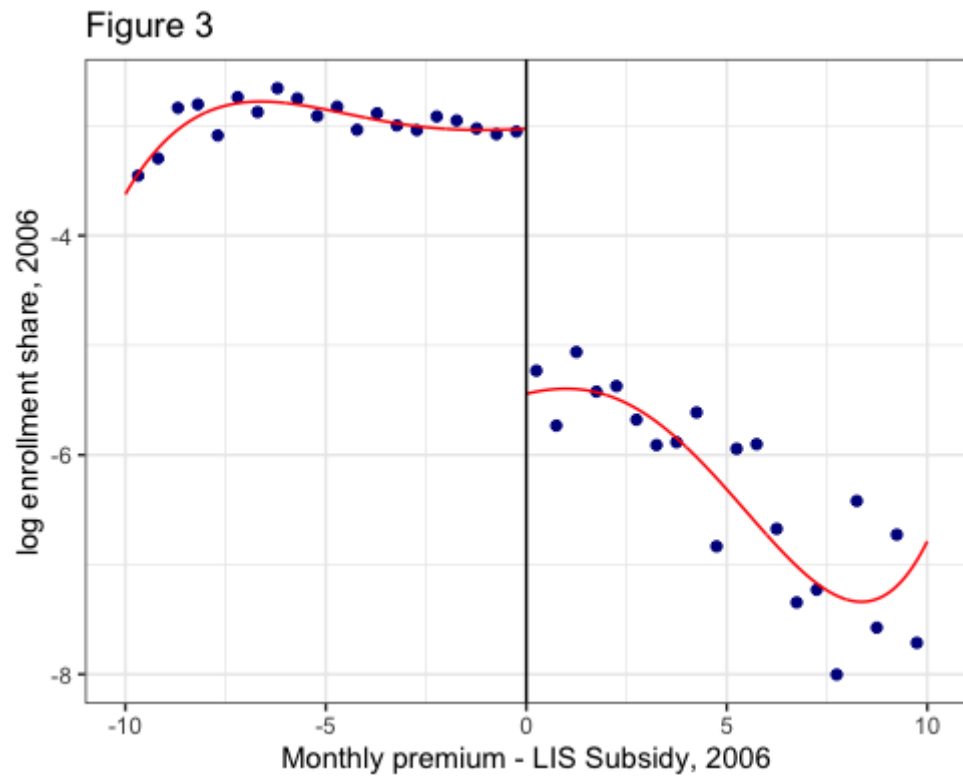


Figure 2: Figure 3 - 10 Bins

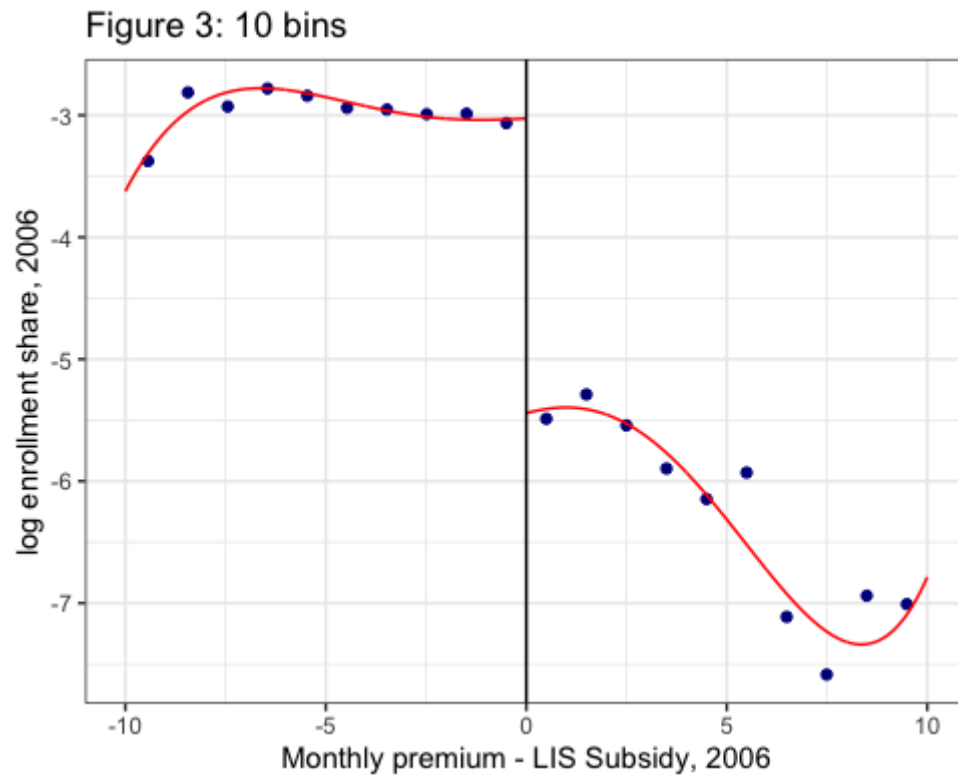


Figure 3: Figure 3 - 30 Bins

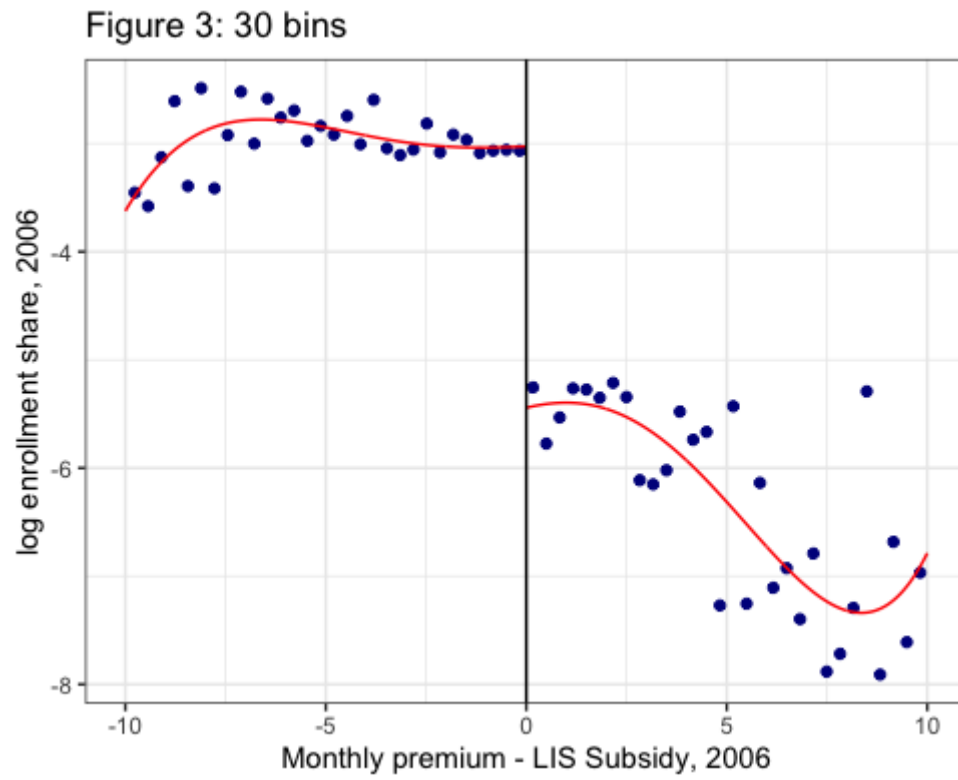


Figure 4: Figure 4 - Optimal Bins

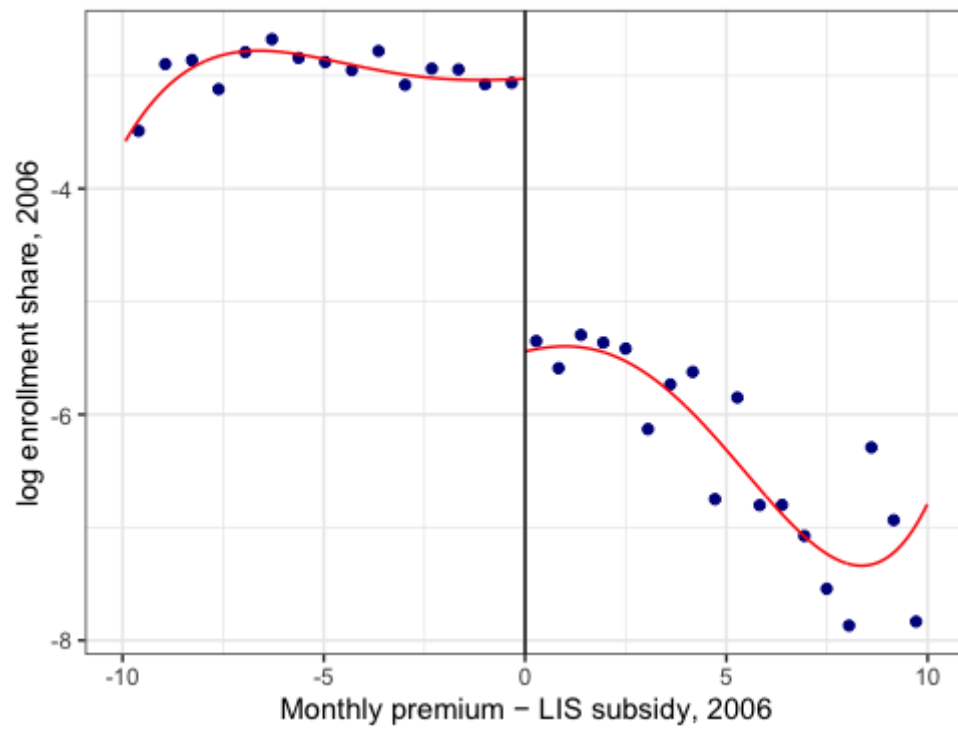


Figure 5: Figure 5 - Jump Manipulation Test

