Homework 2

Environmental Economics II Maghfira Ramadhani

January 22, 2024

1 Python part

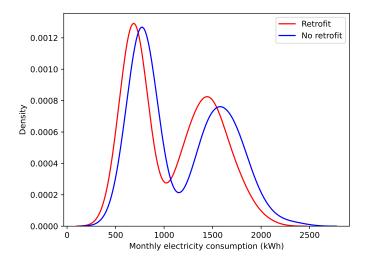
1.1 Balance table

	Control	Treatment	P-value
Electricity	1181.33	1086.75	0.001
	(454.31)	(423.96)	[-3.403]
Square feet of home	1633.05	1657.55	0.572
	(682.90)	(686.27)	[0.566]
Outdoor average temperature	79.89	79.89	0.987
	(2.16)	(1.97)	[0.016]
Observations	501	499	-

Table 1: Balance table. Abc

1.2 Graphical evidence

Figure 1: Density plot of electricity consumption



1.3 OLS regression

Table 2: OLS estimates for different computation methods

		1	
	By Hand	Stats Model	Least Squares
Electricity	-83.603	-83.603	-83.603
	(154.360)	(154.360)	(154.360)
Square feet of home	0.615	0.615	0.615
	(0.006)	(0.006)	(0.006)
Outdoor average temperature	-109.666	-109.666	-109.666
	(7.948)	(7.948)	(7.948)
Constant	3.255	3.255	3.255
	(1.924)	(1.924)	(1.924)
MSE	$\hat{1}25.65\hat{2}$	$125.65\overset{'}{2}$	$125.65\overset{'}{2}$

Ziliak and McCloskey (2009)

References

Ziliak, S. and D. McCloskey (2009). The Cult of Statistical Significance. Proceedings of the Joint Statistical Meetings Section on Statistical Education, 2302–2319.