

HW3

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1 Q1

In the code

	Control	Treatment	Difference
Republican.Judge	0.440	0.649	-0.209***
Severity.Of.Crime	1.559	2.713	-1.155***

2 Q2

	Control	Treatment	Difference
Academic.Quality	0.515	0.466	0.049
Athletic.Quality	0.424	0.551	-0.127**
Near.Big.Market	0.360	0.700	-0.340***

Note: Since the difference in athletic quality and the location of college between control and treatment group is statistically significant, the treatment and control group are not balanced.

3 Q3

Propensity score methods are more credible when we are able to use all variables that the agents who assign treatments can use in their assignments. Comment on how this applies to this setting.

(Answer) Propensity score is the probability of getting a treatment given a set of covariates. Here we assume that we know all the covariates - academic quality, athletic quality, and location of the school - for alumni donations. Thus, with this kind of selection on observables setting, propensity score method could be applied.

4 Q4

In the code

5 Q5

As mygraph.gif

6 Q6

In the code

7 Q7

	(1)
	alumni donations
ranked	489.8 (.)
0.block	0 (.)
1.block	440.2 (.)
2.block	658.7 (.)
3.block	1008.1 (.)
4.block	1035.9 (.)
5.block	1388.4 (.)
6.block	1394.9 (.)
7.block	1648.2 (.)
8.block	1625.9 (.)
9.block	1870.8 (.)

10.block	2206.5 (.)
11.block	2305.8 (.)
12.block	2276.6 (.)
13.block	2916.5 (.)
14.block	2907.7 (.)
15.block	3252.9 (.)
16.block	3524.8 (.)
academicquality	847.1 (.)
athleticquality	-2650.1 (.)
nearbigmarket	-822.9 (.)
._cons	160.6 (.)
<hr/> <i>N</i> <hr/>	<hr/> 80 <hr/>
<i>t</i> statistics in parentheses	
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$	

Notes: College fixed effects are hidden. From this table, we can see that there is a treatment effect of being ranked on alumni donations, while controlling for block-fixed effects and other covariates like academic quality, athletic quality, and the location of the school.