

Problem Set #2

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The attached files, `edgel_ps2b.jl` and `ps2b_functions.jl`, jointly conduct all of the required computational analyses for this problem set.

Part 1: Analytic Exercises

1) a)

Part 2: Monte Carlo Exercises

Question 1

- a) See the `SimulateData()` function in `ps2b-q1functions.jl`.
- b) See the line 27 in `edgel_ps2b.jl` and the `OLS()` function in `ps2b-q1functions.jl`.
The results are reported in the first column of table 2 below.
- c)
- d)
- e)
- f) See Table 2, below.

	$N = 2,000$			$N = 500,000$		
	β_1	β_2	F-Stat	β_1	β_2	F-Stat
OLS	1.00 (0.01)	0.06 (0.00)	0.0	1.00 (0.00)	0.06 (0.00)	0.0
1	1.97 (8.60)	0.69 (5.63)	0.0	1.00 (0.00)	0.05 (0.01)	1.7
2	0.99 (0.01)	0.05 (0.00)	4269.9	1.00 (0.00)	0.05 (0.00)	1074303.6
3	3.39 (112.34)	1.62 (73.63)	0.0	1.00 (0.00)	0.05 (0.01)	5.3
1, 2	0.99 (0.01)	0.05 (0.00)	2850.4	1.00 (0.00)	0.05 (0.00)	716254.0
1, 3	2.02 (8.86)	0.72 (5.80)	0.0	1.00 (0.00)	0.05 (0.01)	4.7
2, 3	0.99 (0.01)	0.05 (0.00)	2848.8	1.00 (0.00)	0.05 (0.00)	716204.7
1, 2, 3	0.99 (0.01)	0.05 (0.00)	2139.4	1.00 (0.00)	0.05 (0.00)	537192.3

Question 2

a)