

Homework 4

Due 8am **Saturday October 15, 2016**

Econ B2000, MA Econometrics

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Weird calendar coming up! No class on 4th nor 11th but on 14th so different homework due date.

Each student should submit a separate assignment, even if it is an identical computer file to the rest of your study group. When submitting assignments, please include your name and the assignment number as part of the filename. Please write the names of your study group members at the beginning of your homework.

1. What are the names of the people currently in your study group?
2. Using the CEX data, do a few interesting linear regressions. Clearly explain the null hypothesis and statistical tests for the coefficient estimates. Show some graphs that help understand the variation. What are some of the important determinants of this variation? What are some of the limitations?
3. (*this question is from a past exam*) I used the CEX data to look at the fraction of spending going to health insurance. For a particular subset, I get the following table, grouped by education of the reference person:

%Insurance	No HS	HS diploma	Some college, no degree	Assoc degree	Bach degree	Adv degree
less than 10%	467	1385	1191	615	1181	521
11% - 20%	82	231	157	71	122	58
21% - 30%	21	65	27	10	32	7
more than 30%	8	18	14	1	3	2

- a. Conditional on the reference person having a college degree (Associate's, Bachelor's or Advanced), what fraction devote more than 20% of spending to health insurance?
- b. Conditional on the reference person having less than a college degree, what fraction spend more than 20% on health insurance?
- c. Is this difference statistically significant?
- d. What is the overall share (in this sample) of people with any college degree? What share of people spending more than 20% is made up of people with any college degree?
- e. Are those break points (+/- 20%; any degree) reasonable? Can you suggest better? Explain.
- f. What problems might there be, with the classification and analysis here? Can you do better with the CEX data?