Problem Set 6

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In this problem set, I will use the data set that I am still preparing, so the estimation results are not accurate yet.

I acquired quarterly data from the Florida Agency for Health Care Administration on all hospital discharges during 2010-2016Q2. Each record includes patients age,sex, race, zip code of residence, year of hospital admission, discharge status, codes for principal and other diagnoses and procedures, and total hospital charges. Records also have information on physicians Florida license number of attending, operating or performing physician of record for the hospital admission. I also obtained publicly available data from the Florida Department of Health on all discipline and actions against physicians (1980-2017). Each claim record included the national provider identifier (NPI) number of the medical doctor involved, and shows whether a physician has any administrative complaint and punishments filed against him/her.

The question that I want to answer is: after a physician get administrative complaints against him, how his peer's would change their behavior?

I estimate linear models of **medical expenditures** and **patient outcomes** using patient-level variables. The equation are the form,

$$R_{it} = \alpha_t + \alpha_h + \beta_0 X_{iht} + \beta_1 AC_{ht} + \epsilon_{iht},$$

where α_t is a time fixed effect, α_h is a hospital fixed effect, AC_{ht} is the aggregate complaints that occurred in hospital h, at time t. Assuming that administrative complaints affect physicians behavior/malpractice pressure, but do not directly affect hospital expenditures and outcomes, the coefficient β_1 identify the effects of one unit increase at aggregate complaints on expenditures and outcomes (R_{it}) .

Table 1: **Effect of Administrative Complaint Against Peer on Inpatient Length of Stay**

	(1)	**(2)**	**(3)**
length of stay			
Intercept	0.94***	0.94***	0.94***
	(0.00)	(0.00)	(0.00)
Treatment	0.00	0.00 ***	0.00***
	(0.00)	(0.00)	(0.00)
Patient Age	0.00***	0.00***	0.00***
	(0.00)	(0.00)	(0.00)
Male	0.05***	0.05***	0.05***
	(0.00)	(0.00)	(0.00)
Hispanic	-0.02***	-0.02***	-0.02***
	(0.00)	(0.00)	(0.00)
Patient Insurance	-0.11***	-0.11***	-0.11***
	(0.00)	(0.00)	(0.00)
time fixed effects	no	yes	yes
patient fixed effects	no	no	yes

*** Significant at the 1 percent level.
** Significant at the 5 percent level.
* Significant at the 10 percent level.

Here, I checked only the effect of malpractice pressure on the *length hospital stays* of patients. If there is defensive medicine, I would expect a positive sign for β_1. However, I found significantly zero effect of one unit increase at aggregate complaints ,the *treatment* variable, on the days that patients stay in the hospital. This effect valid when we control for hospital fixed effects as well[1].

[1]This models are still needed to be adjusted. I have other control variables that I am preparing and I might have error in treatment variable; but I am trying to fix them.