Extra things from SOC 351

Siddhartha Basu

July 8, 2017

1 Things left over

Diff in diff assumptions

Regression discontinuity assumptions

Advanced IV (Mostly harmless chapter on IV)

Advanced fixed effects (Wooldridge chapter on FE, really getting non-nested multi-dimensional FE)

2 Questions for Florencia

- Does exogeneity restriction only matter for D, or other X? Answer: D is the most important variable. If you have a violation for other X, it is not world ending...however this makes it more important for you to have linearity.
- Strict exogeneity $cov(x_{it}, e_{is}) = 0$ for all t, s vs. no time varying confounders.
- Going over fixed effects assumptions (treatment random, strict exo, treatment on outcome)
- Exogeneity $cov(x, e) = 0$ vs. $E(e_{i1|d=1} - e_{i1|d=0})$
- Variation when you have multiple FE (host, month), how do assumptions change?
- Example: variation of birthweight within twins to predict causal impact of birthweight on test score
- Example: individual fixed effect for effect on marriage on wages
- Example: school and year fixed effects, then regress failure rate on murder in municipality
- Example: listingxchannel and marketxmonth fixed effects for host heterogeneity
- Example: route fixed effects for causal impact of airline on delay?
- Example: Moorish influence on Spanish government?

New questions for florencia:

- 'within individual variation to identify' – How does this change for multi-dimensional fixed effects?
- Do you need to assume that 'marriage is an absorbing state' for deviation from means estimator to work?
- General intuition for non-nested fixed effects models.
- How are the β's the same for the deviation from means estimator or first difference estimator?
- Does clustering solve serial correlation problem if you have year fixed effects?
- ask for slides