Comments on: The Impact of CCTs on Children's School Achievement: Evidence from Colombia (by: Garcia and Hill)

Juan F. Vargas

IEN - December 3, 2009

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CCTs and school achievement

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An important question, but elusive...

- There is a fair amount of evidence on effects of CCTs on enrollment rates
- But effect on school achievement greatly understudied
- ...because it's methodologically challenging:
 - Due to (selected) enrollment shock, schools in treatment group undergo compositional changes
 - Failing to control for these may (downward) bias the estimates
- This study: corrects for such potential bias
 - Previously done in Mexico but limited scope due to lack of data
- Effect of "Familias en Acción" on retention rates & test scores

Methodology: compare apples and apples

- Given the *potential outcomes* there are four possible strata:
 - Always enrollers, Newcomers, Dropouts, Defiers (assumed away)
- Treatment effect on the always enrollers: "given that child *i* enrolls anyway, how would *i*'s school achievement change if she took the program?"
- Matching:

	treatment	control
enrollees	always enroller / newcomer	always enroller

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Some comments

- Descriptive statistics report that treatment group subjects (enrolled at follow-up) are less advantaged both in terms of household background and pretreatment school outcomes
- This supports the hypothesis that motivates the paper: "When treatment and control group performance is compared a negative effect estimate may emerge due to these changes rather than real changes in achievement"
- However results challenge this interpretation:
 - Treatment effect on test scores of 5th graders larger for unmatched sample (except for rural areas)
- Any ideas why? You should comment on this

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Some comments

- Interesting asymmetry in the mechanisms of why better test-scores
 - For urban children it is health improvements
 - For rural children it is less labor, and so it is for urban adolescents
- Something to build more on
- Do you allow for interactions in the probit model for the propensity score (*a la* Dehejia and Wahba, 1999)?
- Not sure given reported model:

$$\Pr(Z=1)_{ij} = \alpha + \beta W_i + \gamma M_j + \varepsilon_{ij}$$

• This may help you achieve balance in banks per person

- Sample: Why only 831 (out of over 18,000) have test-score data?
- Would be interesting to see estimates of the overall treatment effect (all ages)
- Explain your DD strategy:
 - Report estimated equation
 - Do you include controls?
 - Have you checked if the parallel trends assumption holds?
- More discussion on unexpected results
 - E.g. Why grade retention *increases* for adolescents?