

Comment on “The Impact of a Technical Training Program for Childcare Providers on Children’s Well-being”, by Raquel Bernal

Eduardo Fajnzylber
Escuela de Gobierno
Universidad Adolfo Ibáñez, Chile

Prepared for the 4th Annual Meeting of the
IMPACT EVALUATION NETWORK (IEN), LACEA
October 8th and 9th, 2010, University of Miami, Coral
Gables, Florida, US

Hogares Comunitarios & PTECA

- HC = early childhood program in Colombia – community based – 12 children per home
 - 2007 evaluation
 - **Positive effects** on child nutrition and development
 - **Flaws** in the **quality of care** (low education of *Madres Comunitarias* (**MC**) and inappropriate childcare training)
- PTECA = Professional-Technical program in Early Childhood Attention
 - 3 semester free training for *MCs* on: **curricular guidelines**, psychosocial dev., **health and nutrition**, attention in case of illness, **ethical environment**.
- **This evaluation**: Impact of PTECA on participating *MCs* (relative to soon-to-be-participating *MCs*)

General comments

- Very interesting intervention, with wide applicability to other countries
- Amazing array of outcomes that were looked at
- Consistently positive results at MC level
- Minor comments on identification and estimation strategies

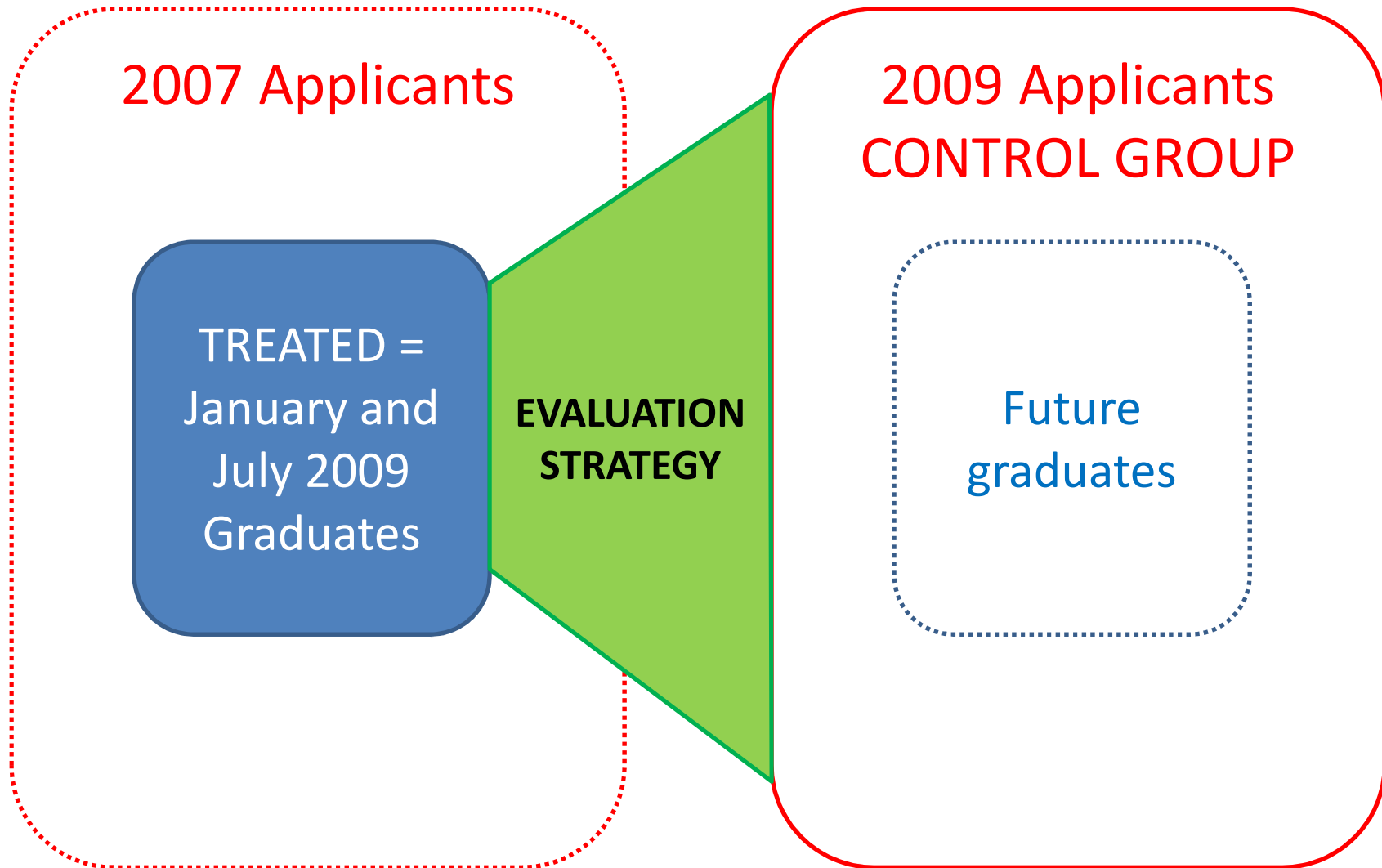
Outline of comments

1. Identification strategy
2. Results
3. Comments and suggestions

Identification strategy

- Treated = 67 MCs (out of 100) who graduated from PTECA in January and July 2009
- Controls = 73 MCs (out of 198) who expressed interest in PTECA, whose entry was postponed until Jan.2010
 - Some received a presentation of the program
 - Delayed entry based on application order
 - These were applicants (high drop-out rate)
- Outcomes and covariates = measured in Nov-Dec 2009
 - Pre-treatment for Control units
 - Post-treatment for Treated units

Applicants v/s graduates



Threats to identification

- **Graduates** potentially \neq from **applicants** (in *unobserved dimensions*)
 - More interest, time, resources, cognitive skills
- Treated and controls come from **different neighborhoods**
 - Random ordering of neighborhoods? → provide more evidence
- Two years difference in application: Treated may be more **experienced**
- **Small sample size** (67 T + 73 C) → low power of “identification” tests
- Lack of **baseline** → cannot compare pre-treatment outcomes
 - Idea: look for data from 2007 evaluation?
- **Selective absenteeism** (24%) on the day of the visit may affect certain outcomes
 - Idea: You have data from 295 absent children → compare outcomes of absent v/s present children
- Strategic behavior?
 - Due to PTECA **Treated** units may have a clear idea of what items should be evaluated and prepare specially for that
 - **Control** units were scheduled to start 2 months later → they may interpret the visit as an evaluation, prior to the program
 - Measures at the **child level** should not be subject to strategic behavior

Treated v/s Controls **MCs**

Table 4. Comparison of MC and HCB by group

OBSERVABLE CHARACTERISTICS	TREATMENT	CONTROL	DIFFERENCE P-VALUE
Number of observations	67	73	
1 SISBEN survey (%)	68.7	72.6	0.611
2 SISBEN level 2 or less condition on being surveyed (%)	84.7	91.1	0.365
3 Household's average monthly income (thousands \$)	1,223.2	1,388.2	0.234
4 Household's average monthly expenditures (thousands \$)	882.8	874.3	0.919
5 MC's age	40.9	40.9	0.981
6 MC's average schooling attainment	12.4	11.6	0.015 **
7 MC is head of household (%)	26.86	30.13	0.671
8 MC is head of household's spouse (%)	65.66	61.64	0.624
9 MC is head of household's daughter (%)	7.46	5.48	0.636
10 MC is married or cohabiting (%)	68.66	71.23	0.742
11 MC is separated, widow or single (%)	31.3	27.4	0.611
13 Household's size	4.09	4.16	0.752
14 Number of children under 18 in household	1.45	1.56	0.506
15 ICBF monthly contribution for work in HCB (thousands \$)	323	328	0.153
16 Monthly participation fees for work in HCB (thousands \$)	281	306	0.278
17 % of HCB in lowest wealth quintile ^{&}	16.4	21.9	0.414
18 % of HCB in highest wealth quintile ^{&}	22.4	19.2	0.643
19 Wealth index ^{&}	8.448	8.582	0.429
21 % membership to contributive health insurance	94.0	94.5	0.901
22 % membership to subsidized health insurance	2.97	1.37	0.513
23 Continuous time as MC (years)	10.16	7.92	0.038 **
24 Number of children in the HCB	13.17	12.43	0.159

*** Statistically significant difference at 1%, ** at 5%, * at 10%

- Treated MCs are
 - Less vulnerable
 - More educated
 - More experienced
 - With more children in HCB
- LPM of Treatment status
 → $R^2=0.173$
 p-value=0.11

**Significant at 5% with
N>2000**

Treated v/s Controls **Households**

Table 6. Comparison of beneficiary households by group

OBSERVABLE CHARACTERISTICS	TREATMENT	CONTROL	DIFFERENCE P-VALUE
Number of observations	770	806	
SISBEN survey (%)	63.1	74.0	0.000 ***
SISBEN level 2 or less condition on being surveyed (%)	93.9	97.52	0.004 ***
Household's average monthly income (thousands \$)	946.4	908.2	0.188
Household's average monthly expenditures (thousands \$)	681.9	635.8	0.013 **
Mother's age	28.6	28.6	0.922
Mother's schooling mean	10.4	10.0	0.102
Mother is head of household (%)	14.31	14.08	0.888
Father present (%)	70.83	70.64	0.941
Mother is married or cohabiting (%)	72.18	70.23	0.418
Mother is separated, widow or single (%)	27.1	29.6	0.296
Household's size	4.32	4.36	0.633
Number of children under 18 in household	2.06	2.13	0.138
% of children in lowest wealth quintile ^{&}	19.55	20.32	0.679
% of children in highest wealth quintile ^{&}	19.16	20.96	0.319
Wealth index ^{&}	3.558	3.509	0.327
% contributive health insurance	61.94	57.54	0.095 *
% subsidized health insurance	33.62	37.62	0.120
Maternal employment status	71.32	71.90	0.811
Working mother's average earnings (thousands \$)	498	479	0.535
Employment status of the head of the household	91.12	90.16	0.561

- Treated HHs are
 - Less vulnerable
 - Higher expenditure
 - + Contributive health coverage
- LPM of Treatment status
 - ➔ $R^2=0.017$
 - p-value=0.17

Summary of results

- Results at the MC level are consistently positive
 - Following guidelines, conducive learning environment, quality of care, interaction w/parents (*strategic behavior?*)
 - Idea: announced v/s unannounced visits?
- Results are not significant at children's level except:
 - Incidence of cough, flu or cold (*health insurance effect?*)
 - Some development indicators (based on ASQ test), when focusing on earlier graduates (*selectivity effect?*)
 - ➔ Is there a measure of MC *performance on the PTECA?*

Comments and suggestions

- Estimation:
 - OLS with same controls in each specification to avoid **pre-testing** bias (or present all specifications that were tried)
 - OLS allowing for **differential effects** of X on Y_0 and Y_1
 - Compare OLS with **other** “selection on observable” techniques
 - Variables that could be considered as **outcome variables** (# of children in HCB, Average monthly Income, SISBEN..)
 - ➔ Careful to include as **controls**
- Importance of baseline to compare pre-treatment outcomes
 - Why not use this opportunity to construct a pre-treatment baseline for **future evaluations** (looking at MCs in other neighborhoods)?

Comment on “The Impact of a Technical Training
Program for Childcare Providers on Children’s
Well-being”, by Raquel Bernal

Eduardo Fajnzylber
Escuela de Gobierno
Universidad Adolfo Ibáñez, Chile

Prepared for the 4th Annual Meeting of the
IMPACT EVALUATION NETWORK (IEN), LACEA
October 8th and 9th, 2010, University of Miami, Coral
Gables, Florida, US