

The long lasting effects of a conditional cash transfers on children's human capital

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...in a nutshell

CONTRIBUTION:

- We evaluate the **effects of a CCT** on the **adult outcomes** of beneficiary children

IDENTIFICATION:

- Implementation of a **social programme** as natural experiment

RESULT:

- Persistent (and heterogeneous) effects on children's human capital
→ **long-run effects of the program on schooling & labor income**

Background Information

Social Programme: Chile Solidario (CS)

- Started in **2002** addressing the extremely poor (~ 5% of population)
- Main aim: **Link the poor** to the **existing** social transfer schemes

CCT: Single Family Subsidy (SUF)

- **Higher take-up** of SUF among families participating in CS; between **36 and 67%** (Carneiro et al., 2015)
 - **CS is a natural experiment** to measure the **effect of SUF**

Identification Strategy

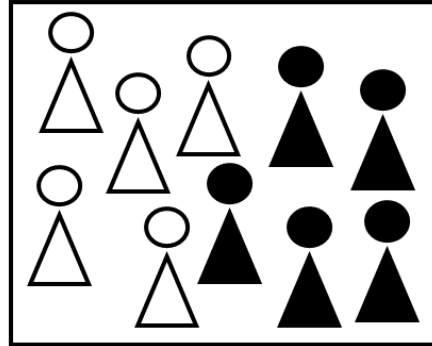
Children < 18 are eligible for **SUF** (family income in the bottom 40 %).

When **CS** started in **2002**, children born

1985-1986-1987-1988-... were **eligible** | **1984-1983-1982-1981-...** were **not eligible**

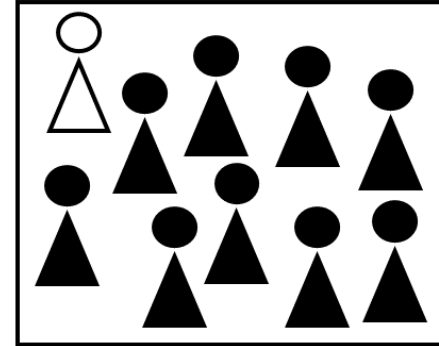
Older than 18

Individuals born *before* 1985



Younger than 18

Individuals born 1985 or *after*

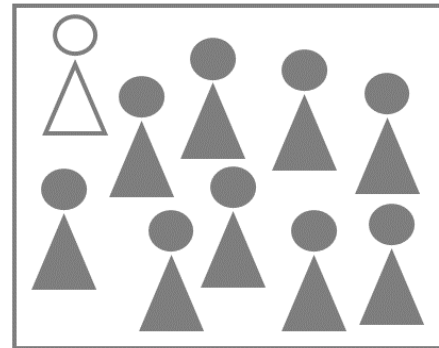
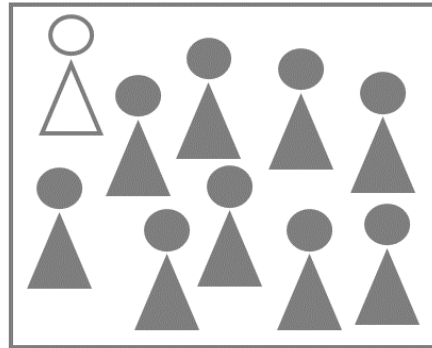
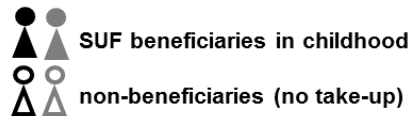


Treatment Group

- ✓ Eligible for Chile Solidario
- ✓ Eligible for SUF

Control Group

- ✓ Not eligible for Chile Solidario
- ✓ Eligible for SUF



Program eligibility and parental background

Data: CASEN, nationally representative household survey

Survey includes **retrospective** questions on **parental background**

→ **2/3** of the participating household heads and spouses in the first years of CS had no primary education degree (Galasso, 2011)

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Thorough **retrospective questions** in CASEN 2013 we identify ...

Treated: Individuals whose **parents** have „**No Education**“

Control: Individuals whose **parents** have some primary but no secondary education

Method: Difference in Difference

$$y_{ijt} = \eta_j + \lambda_t + \gamma X_{ijt} + \delta S_{jt} + \varepsilon_{ijt}, \quad (1)$$

y_{ijt} **outcome** of i in group $j \in (T, C)$ and cohort $t \in (0, 1)$

$t = 0$ born before 1985

η_j, λ_t **group** and **cohort** fixed effects

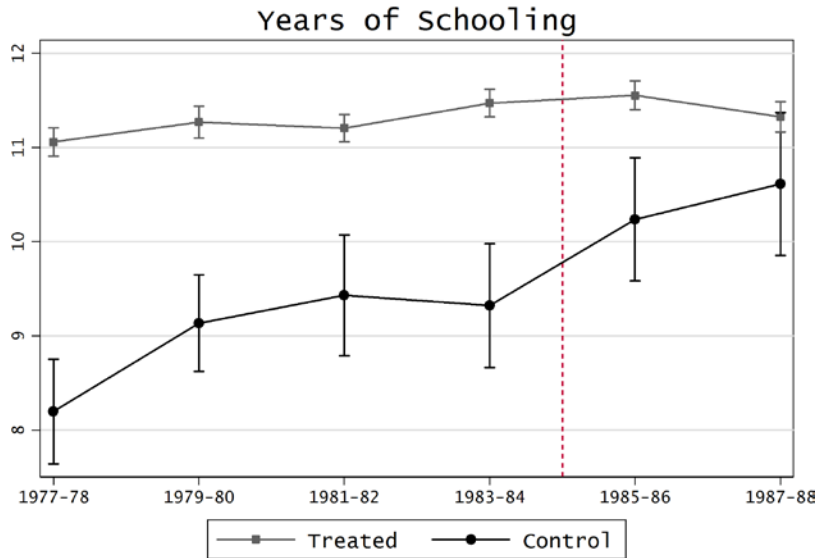
X_{ijt} **individual controls**
(age, household size, region, urban/rural, self-reported health)

S_{jt} indicates treatment status of group j in cohort t

$$DD = \delta + (\varepsilon_{T1} - \varepsilon_{T0}) - (\varepsilon_{C1} - \varepsilon_{C0}). \quad (2)$$

Standard errors **clustered** at municipality level (323 clusters)

Common Trends



Average effects (unconditional)

1.3 Years

274 USD

Results - Baseline

	Years of Education			Labor Income (in USD)		
	Conditional	Only Women	Only Man	Conditional	Only Women	Only Man
DD	1.075*** (0.4073)	0.913* (0.4720)	1.374** (0.6391)	290.987*** (95.5945)	51.483 (75.7571)	385.861*** (132.2370)
Treated (0/1)	-2.129*** (0.2276)	-2.059*** (0.2935)	-2.232*** (0.3678)	-157.258*** (33.0931)	-142.350*** (36.1156)	-223.765*** (54.6378)
Time (0/1)	-0.037 (0.2106)	-0.043 (0.2819)	0.062 (0.3279)	-59.414 (93.3812)	-52.434 (76.6662)	-142.624 (191.2097)
Observations	7627	5075	2552	5229	2815	2414

Control variables: age, age-squared, number of household members, rural or urban location, region of residency dummies, ethnic background (indigenous or not), a dummy for migrants, and self-reported health.

Data: CASEN 2013, own estimations. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Weighted.

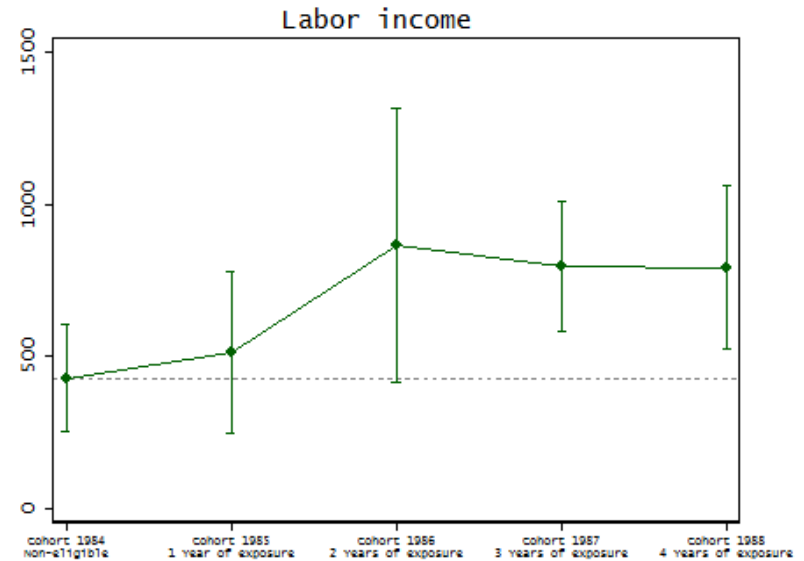
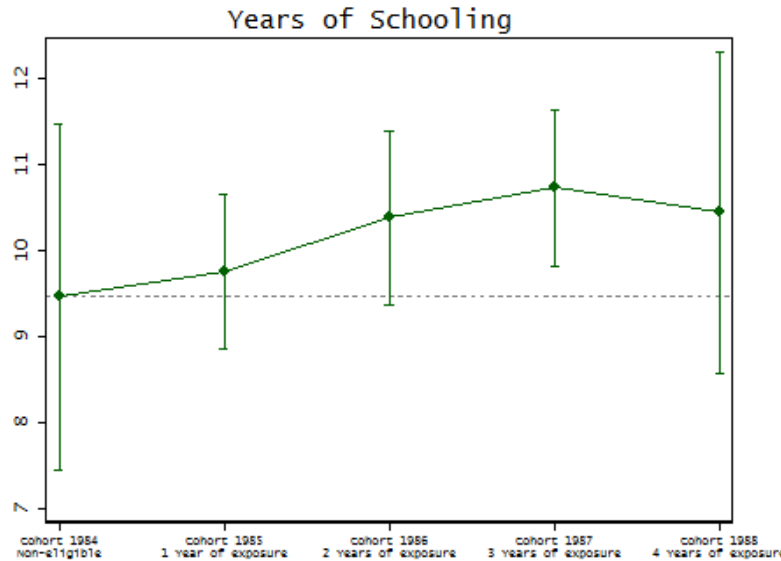
Results – Heterogeneity

- Effect only in **urban** areas
- Among **indigenous**, effect on schooling stronger and on labor income weaker
- Positive effects on schooling and earnings among women with **no children**

Robustness

- Diff-in-Diff PS Matching (Heckman et al. 1997)
- Multiple control groups and full set of dummies
- Labor income: Missing values set to 0
- Placebo Tests:
 1. Treated = parents with incomplete secondary
 2. Outcome = Non-Labor income
 3. Intervention set to 1982

Intensity of Treatment Effect



Conclusion

- Short run effects of CS (and SUF) on children's human capital **persist in the long run**

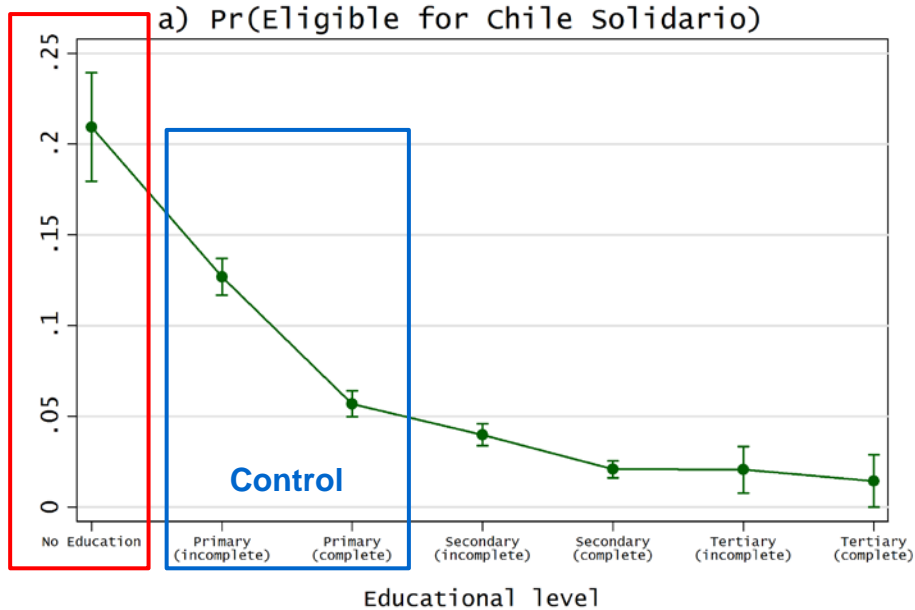
Outlook

- **Semi-parametric Diff-in-Diff (Abadie 2005)**
- **Investigate spill-over effects**

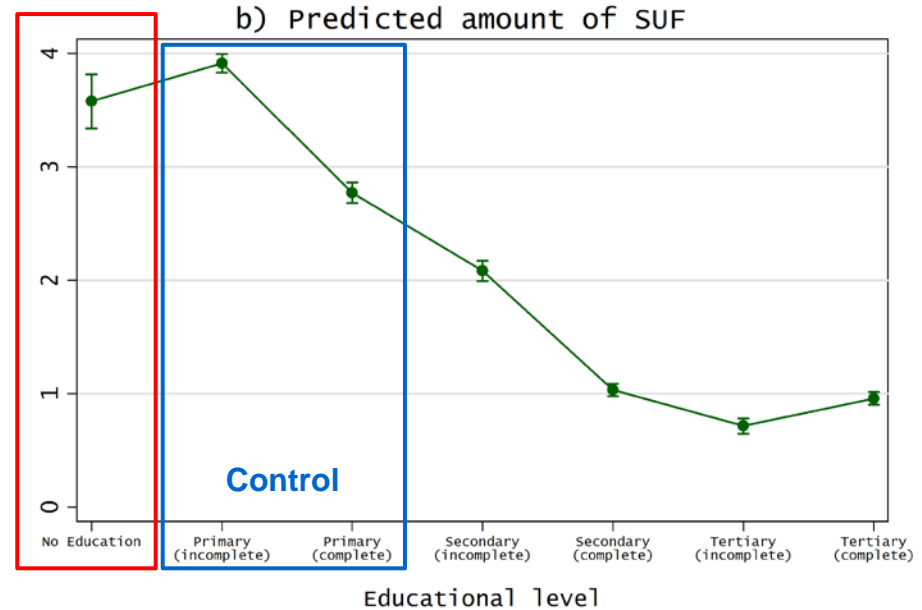
***Thank you for your attention,
your comments are very welcome!***

Program eligibility and parental background

Treatment



Treatment



Individuals aged 30-60. Source: CASEN 2003, own estimations.

Pre- and Post-Treatment sample averages

Control variables / Cohorts	1977-1984 (t=0)			1985-1988 (t=1)		
	Control	Treated	Diff.	Control	Treated	Diff.
Male (0/1)	0.333	0.419	-0.086	0.329	0.514	-0.185
Age	32.612	33.273	-0.661	26.637	26.615	0.022
Rural (0/1)	0.194	0.290	-0.096	0.184	0.155	0.029
# of household members	4.260	4.158	0.102	4.213	4.390	-0.177
Indigenous (0/1)	0.124	0.175	-0.051	0.146	0.164	-0.018
Migrant (0/1)	0.005	0.007	-0.003	0.003	0.002	0.001
Self-reported Health	5.817	5.796	0.022	5.978	6.059	-0.080

Notes: 734 observations in treated and 7,003 in control group. (0/1) indicates dummy variable. Self-reported Health: (1) “very bad”- (7) “very good”. Migrants only included if migrated to Chile before 2002. Bootstrapped standard errors reported in italics below the estimates. Source: CASEN 2013, own calculations.