

# Gender Differences in Child Investment Behavior among Agricultural Households

Evidence from an Unconditional Cash Transfer  
Program in Lesotho

Aswini Sebastian, Ana Paula de la O  
Campos, Silvio Daidone, Benjamin Davis,  
Ousmane Niang, Luca Pellerano

Transfer Project Workshop  
Dakar – June 7-9, 2017



# Cash transfers and child investment

- Wide evidence that CTs have positive child outcomes (de Hoop and Rosati, 2013), including schooling – Malawi, Burkina, Zambia (Miller and Tsoka, 2012; Akresh et al. 2013); Handa et al. 2015)
- No consistency of higher impacts in education for either girls or boys – but overall, reducing ex-ante gender inequalities in schooling
- Some evidence of child preference in Brazil and South Africa, Burkina and Morocco (Emerson and Souza, 2002; Duflo 2003; Akresh et al. 2013; Benhassine et al. 2013);
- Overall, women's higher control of resources increases children's welfare (Quisumbing and Maluccio, 2003; Quisumbing and Maluccio, 2003)



# What's missing?

- Little is known on unconditional CTs
- Scarce evidence on differences by gender of child:
  - gender of the recipient and child preference
  - types of jobs available for girls/boys, gendered roles assigned to them in the household
  - household structure - e.g. when only one adult (female) is present; relation between adult/recipient and the child (daughter/son, grandchildren, other orphans); age of hh head
- How impacts relate to adult labor supply and the way child labor complements adult labor in agricultural households



# Research questions

- Does an UCT impact boys and girls differently in agricultural households?
- Do preferences (or rather constraints) within household structure cause gendered differences in UCT's impacts on child outcomes?
- Does the gender of the UCT recipient affect gender differentiated child outcomes? (Is there gender bias?)
- How the impacts relate to responses to UCT in adult labor supply of agricultural households?



# Hypothesis

- CTs alleviate credit / budget constraints affecting adult and child labor
- CTs reduce marginal costs of education, affecting parents' decisions about who send to school (marginal benefits)
- Transfer size, design of CT and messaging matters



# The Lesotho Child Grants program (CGP)

- Started in 2009
- Unconditional CT to poor households with OVCs
- Combination of PMT and community validation
- Initially flat 360LSL ( $\approx 36$ US\$) disbursed quarterly, indexed to the number of children
  - Last payment before evaluation, around 20% of median household consumption
- Strong messaging on investing in children's schooling and health
- Food Emergency Grant top-up before follow-up with some messaging on agriculture investment



# Data

- RCT design with one baseline (June/August 2011) and one follow-up (June/August 2013)
- Covered 5 districts
- Sub-sample:
  - Agricultural households (86% of original sample)
  - Unmarried FHH (98% FHH) and married MHH (85% MHH)
  - Total sample: 468 control and 538 treatment households per survey wave
- No attrition in our sample



# Baseline results

- Older boys (13-17 yrs) typically more disadvantaged than girls in poor agricultural households
  - Higher participation and time spent of boys in livestock and farming activities
  - Higher share of girls with secondary school level and more hours spent doing homework
- But girls typically spend more time in hh chores
- Overall below optimal level of education and high grade repetition
- Similar trends among younger children (6-12yr) but enrollment and participation is higher



# Baseline results by HH structure

- FHH heads are single – lower adult labor capacity and older
- About 43% of children in FHH are sons/daughters of household head – grandchildren or other orphans
- Slightly higher enrollment of older children in FHHs
- Almost two-thirds of children in MHH are sons/daughters of the household head
- Older children in MHHs spend more time farming



# Empirical Strategy

- To measure the general impacts of the program on child outcomes:

$$Y_{iht} = \gamma_0 + \gamma_1 \text{Treat}_h * \text{Post}_t + \gamma_2 \text{Post}_t \\ + \gamma_3 X_{iht} + \gamma_4 Z_{ht} + \gamma_5 Q_{ct} + \beta_d * \eta_t + \delta_i + \varepsilon_{iht}$$

Where  $\gamma_1$  is the coefficient of interest, i indexes individual, h household, c community, d district and survey year (t=2011; 2013).

- $\text{Treat}_h$  is an indicator variable set to one if household was cash transfer beneficiary.
- $Y_{iht}$  are outcomes of **youth labor, schooling and time use**
- Household covariates include age of head, education of head, household size and household composition (to control for potential differences in labor constraints), while community variables consist of price, wage and shock indicators.



# Empirical Strategy

- Similarly, to estimate the impacts by child gender, stratified by schooling age:

$$Y_{iht} + \alpha_0 + \alpha_1 Treat_h * Post_t * Girl_i + \alpha_2 Post_t * Girl_i + \alpha_3 Post_t + \alpha_4 X_{iht} + \alpha_5 Z_{ht} + \alpha_6 Q_{ct} + \beta_d * \eta_t + \delta_i + \varepsilon_{iht}$$

- To estimate impacts by household structure we substitute `Girl' dummy with `FHH' dummy and estimate the regression for sample stratified by child age and gender
- Similar strategies used to determine impact of gender of treatment recipient



## Previous results (Pellerano et al. 2014)

- Shows that CGP's messaging did affect schooling
- Increased spending in school uniforms and shoes
- Positive impact in enrollment (ages 6-19)
  - Impact driven mainly by large decline of enrollment of older boys aged 13-17 in control group which is 6-10 pp higher, concentrated in primary level pupils
- Found overall (but weak) gender bias in schooling, favoring boys
  - But looked at full sample of households



# Results 1: Overall positive impact on children's schooling in ag households

- Improved outcomes for older children (13-17): schooling, time-use, labour
  - 12 pp more likely to be enrolled
  - 20 pp less likely to have missed school in last 30 days
  - One extra hour spent at school
  - 45 min/day reduction on household chores
  - 0.9 fewer days/week on the farm
- Small and mostly not statistically significant impact on schooling of children aged 6-12
  - But at baseline they were 99-100% likely to be enrolled
  - **Increased 13 min/day in farming!**



## Results 2: Overall gender differences in outcomes

- Higher impacts for older aged girls:
  - 24 pp more likely to be enrolled in school
  - 32 pp less likely to miss school in the last 30 days
  - 140 min/day more in school
  - Spent 85 min/day less in chores
- However **reduction in farm labor** is driven by boys:
  - Older boys spend 1.23 fewer days/week working on the farm, significantly different than older girls
  - But we know older boys were disadvantaged before the CT



## Results 3: Household structure affects impacts of CT on children's welfare

- Girls fare better in MHH while older boys fare relatively better in FHH in terms of schooling
- In MHHs:
  - older children 18 pp less likely to repeat school
  - older girls are 40 pp less likely to repeat school
  - also for younger girls positive results: 23 pp less likely to miss school
- In FHH:
  - Overall high impact in enrollment among older children, 27pp, driven by older boys 34 pp
  - But **younger boys and girls** in FHH are more likely to miss school by 18--26 pp



## Results 4: Cash in the hand of mothers: not always the highest impact but...

- Mixed evidence on child outcomes
- We looked at MHHs where a male and a female are present (usually spouses) and found that:
  - Reduction in school repetition for older children **is greater** when cash is given to an adult male
  - But when the cash is given to an adult female: higher positive overall impacts in enrolling and not missing school - **and higher effects in older girls**
  - Also **more time at school for older girls** when women are cash recipient



# Results 5: Substitution effect in children's activities

- Women in FHH increased agricultural activities, while in MHHs women's ag work decreased with CT
- MHHs: overall child labor reduced, and less time in domestic chores for older girls
  - **and older boys engaging more in household chores!**
  - substitution effects between older girls and boys on chores (same level and significance)
- FHHs: additional hour in school by older children (boys)
  - **younger boys 28 pp more likely to work on farming!**
  - substitution effects between younger and older boys (-2 days vs. .22 days in last 7 days)



# Conclusions

- The Lesotho CGP has been successful in improving schooling and in reducing time use and labour participation in farming for older children (14-17) in agricultural households
- Household structure plays a role in determining child investment and labour allocation
  - Labor capacity of households (and by current and future labor market opportunities of boys and girls)
  - Potentially different relationships and age play a role
- Gender bias: when women receive the cash, there is higher impact in girls' schooling – but in Lesotho there were ex-ante gender inequalities favoring girls



# Policy implications

- An undifferentiated cash transfer should at least include gender-specific messaging to promote boys' and girls' equal benefit in schooling
  - But design can improve impact... incentives for boys to not only enroll but spend more time in school
- Should take into account household constraints and aspirations...
  - Other mechanisms needed that could facilitate households' access to agricultural labor – particularly for labor constraint households, higher transfer...
- Limits: economic returns matter, but also other things: hopes about the future, expectations about the children's success, even generosity ... but these difficult to measure in quantitative analysis -- mixed methods!

