

DOES SCHOOL QUALITY MATTER? PRIMARY SCHOOLS' CHARACTERISTICS AND CHILD LABOR INTENSITY IN SENEGAL

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PRESENTATION PLAN

I. Background and Research question

II. Objectives of the study

III. Related literature and limits

IV. Methods

V. Data sources

VI. Results

I. Background and Research question

(Start)

- Child labor, a worldwide phenomenon. Almost 59 millions of children in Africa (ILO, 2012)
- Incidence of child labor in Senegal 72%; Incidence of child labor in Africa 21% (DHS, 2011; ILO, 2012)
- The areas with poor school characteristics are also those with the higher proportions of working children

I. Background and Research question

(Cont.)

- Sedhiou and Kaolack—highest ratios of school-age children by classroom in elementary school in 2010 (**67 and 69**) and also the highest proportions of children laborer (**91% and 93%**); in Kaffrine **38** –lowest proportion of child laborers (**45%**)- (DHS, 2011; MEN, 2011)
- Sedhiou-highest proportion of temporary shelters (**11.4%**), it was **8.6%** in Kaolack and **3.9%** in Kaffrine

I. Background and Research question

(End)

- Poor school quality might contribute to explain the importance of child labor in Senegal beyond the usual causes raised in the literature (households poverty, economic shocks, market imperfections)

- Does primary schools characteristics in Senegal influence households' decisions to involve early their children into work and affect the burden of works they perform?

II. Objectives of the study (End)

- (1) To analyze whether the policies employed by educational authorities to improve the quality of formal education in Senegal are likely to reduce children participation into domestics chores and economic activities
- (2) To evaluate whether the same policies are likely to reduce the burden of work they perform into these 2 types of activities

I. Related Literature and limits (Start)

- Schools' characteristics, many times used in the literature to explain the schooling choices households make for their children (see for example Marshall, 2011; Nishimura and Yamano 2013; Bold and al, 2015)
- They are considered as determinant to explain the return to education (Glick and Sahn, 2006; Marshall, 2011; Bold and al, 2015)

I. Related literature and limits (Cont.)

- But only few studies examined the relationship between these characteristics and child labor (see among them De Hoop and Rosati, 2014; Kazianga and al., 2014)
- And **they do not find any effect** of schools' characteristics on the strict involvement of children into labor

III. Related literature and limits (End)

- Moreover none of them have tried to assess whether an improvement of school conditions is likely to influence the intensity of labor children realize
- In some extent, children's involvement into work in developing countries can be considered by parents as having a cultural and/or a socializing dimension complementary to formal education (Diallo, 2001)

IV. Methods (Start)

- A simple theoretical model has been developed to show how school quality can affect parents decisions to make their children work and/or go to school and the intensity of work they make children realise
- First Order Conditions:

$$q_s - c_i \succ \frac{\frac{\partial U}{\partial Q} X \frac{\partial Q}{\partial L}}{\frac{\partial U}{\partial F}} \implies L = 0$$

IV. Methods (Cont.)

$$q_s - c_i \leq \frac{\frac{\partial U}{\partial Q} X \frac{\partial Q}{\partial L}}{\frac{\partial U}{\partial F}} \implies L \succ \mathbf{0}$$

IV. Methods (Cont.)

- **Empirical strategy:** Selection rule from the first order conditions

$$L^* = 1 \left[q_s - c_i \leq \frac{\frac{\partial U}{\partial Q} X \frac{\partial Q}{\partial L}}{\frac{\partial U}{\partial F}} \right]$$

- Households with children engaged into work may differ from those with children not engaged into this activity because of some unobservable characteristics such as households' preferences for consumption, for schooling, etc

IV. Methods (End)

- Heckman 2 steps-

$$L_{1ijk} = \delta_1 + \alpha_1 X_{1ijk} + \beta_1 H_{1jk} + \theta_{1k} S_{1ijk} XD_{1k} + \gamma_{1k} D_{1k} + \varepsilon_{1ijl} \quad (1')$$

$$L_{2ijk} = 1 \left[\delta_2 + \alpha_2 X_{2ijk} + \beta_2 H_{2jk} + \theta_{2k} S_{2ijk} XD_{2k} + \gamma_{2k} D_{2k} + \varepsilon_{2ijl} \right] \quad (2')$$

- FGLS

$$\theta_k = \phi + \lambda E_k + \mu \quad (3')$$

V. DATA (Start)

- The data used come from the Senegal 2010-2011 DHS-MICS survey. They have been matched with the statistical yearbooks data of 2010 and 2011 coming from the Senegalese Ministry of Education
- Sample: Primary school age children (7-12 years)—
12000 children

V. DATA (End)

- Variables used to measure school quality in each area: **rate of grade repetition in primary** education (2009-2010); **Average number of Professional teachers by school, Volunteer teachers, Pupils-teacher ratio, % of pupils benefiting from feeding programs, % of schools benefiting from deworming programs, Textbook index, Decentralisation index**
- Controls: Child's age, sex, the head of the household age, bank account, tontine, agricultural lands, etc.

VI. Results (Start)

Children's characteristics and those of their households and their participation into work and on its intensity

- Head age (DC - -; EA), head educ (DC - -, EA -), Child age (DC + +, EA +), sexe (F DC, G EA), Acces to credit (EA +, Int -), Livestock(DC, +)

School quality and children participation in labor and on the intensity of work they perform

- **No effect of an improvement of school quality on the strict participation of children into work** but a marginal increase of pupils-teacher ratio and the grade repetition rate lead respectively to an increase of **0.10%** of the burden of work children perform in **EA** and an increase of **7%** of the burden of work they realise in **DC**

VI. Results (End)

- Senegal's educational policies aiming at improving school quality by reducing grade repetition rates and the pupils-teacher ratios are also efficient to cope with child labor
- It is then necessary that educational authorities ensure an equal access in school quality to populations because at the regional level, there are often significant disparities in the provision of educational services.

THANK YOU
VERY MUCH FOR
YOUR LISTENING