

# Child labor and schooling outcomes: Evidence from Côte d'Ivoire

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**ILO RTA Conference (June 27-29, 2022)**



# Overview

## 1 Introduction

## 2 Data

## 3 Results

- Prevalence of child labor
- Child labor differences between groups
- Risk factors of child labor and schooling

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# 1 Introduction

## 2 Data

## 3 Results

  
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# Child labor in the world

- Worldwide, 160 million children in the world engage in child labor, with 79 million endorsing hazardous work
- 70% of child labor globally (85% in SSA) is concentrated in the agricultural sector
- Cocoa is one of the world's most traded products
- Côte d'Ivoire is the world's leader in cocoa exports
- We study child labor (prevalence and determinants) on a sample of vulnerable households living in cocoa growing regions of Côte d'Ivoire



# Child labor in Côte d'Ivoire: prevalence and evidence gaps

- Prevalence of child labor estimated at 33% (Sadhu et al., 2020)
- Child labor has detrimental consequences on children's health and learning outcomes

## Evidence gaps

- Child labor and COVID-19
- Impact of child labor alleviation policies
- SEME (Soutenir l'Enfant à la Maison et à l'Ecole), ongoing research program in Côte d'Ivoire on child labor alleviation policies
- Data presented is part of SEME

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# Research questions

- 1 During and in the aftermath of the COVID19 pandemic, what was the prevalence of child work in rural Côte d'Ivoire?
- 2 How does this prevalence vary by demographic groups?
- 3 What are the risk factors of child labor and schooling decisions in Côte d'Ivoire?

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# Research methodology

- 1 Literature review on risk factors of child labor
- 2 Descriptive statistics on the prevalence of child labor
- 3 Multinomial logistic regression on families decisions



- 1 Introduction
- 2 Data
- 3 Results





# Sample and study description

- Cocoa farmers living in 140 villages in the Center West (Bouafle and Daloa) and South East (Meagui) regions of the country
- We survey children (N = 1766) and their female caregiver
- We collect a battery of child- and caregiver-level information



Table: Sample description (1)

Variable description	N	Mean (or percent)	Standard deviation	Min	Median	Max
<b>Child characteristics</b>						
Child age	1701	9.2	2.5	5	9.0	15.0
Sex (proportion of males)	1766	0.5				
Enrolled in school (proportion)	1766	84.2				
<b>Households' characteristics</b>						
Age of the mother	1715	41.1	10.7	18	40.0	82.0
Size of the household	1766	6.5	2.9	1	6.0	15.0
Dependency ratio (%)	1766	0.2				
Biological parents (%)	1766	73.1				
Father's education (%)	1551	51.1				
Mother's education (%)	1766	31.0				
Women as household heads (%)	1766	16.1				
Reliance on cocoa agriculture (%)	1766	77.9				

Table: Sample description (2)

Variable description	N	Mean (or percent)	Standard deviation	Min	Median	Max
<b>Poverty and deprivation indicators</b>						
MPI score	1766	0.5		0.1	0.4	1.0
PPI – national poverty line (%)	1764	58.2		5.8	60.8	93.2
MPI score at the village level	140	0.5		0.3	0.5	0.7
PPI index at the village level	140	57.7		36.2	58.3	82.2
<b>Survey variables</b>						
Bouafle (Center-West)	1766	34.9				
Daloa (Center-West)	1766	42.1				
Meagui (South-East)	1766	23.1				

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# Child work: indicators' summaries

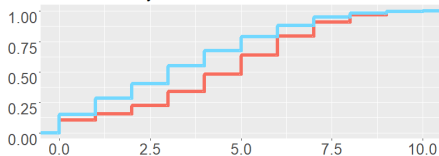
## Child labor activities during COVID19

Variable	N	Mean (Percent)	Sd	Median	Max
Domestic work (sum of 10 activities)	1766	3.9 (87.5)	2.5	4	10
Economic work (sum of 5 activities)	1766	0.7 (39.2)	1.1	0	5
Farm work (sum of 36 activities)	1766	4.4 (0.5)	4.8	0	33
Hazardous farm labor (sum of 12 activities)	1766	1.0 (34.5)	1.8	0	11

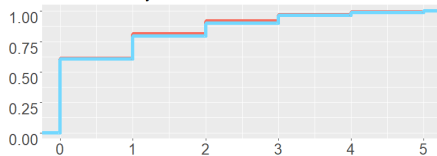


# Child labor differences between boys and girls

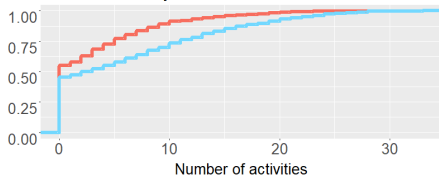
ECDF by child sex: Domestic child labor



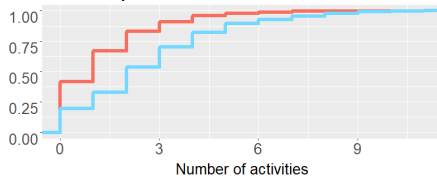
ECDF by child sex: Economic child labor



ECDF by child sex: Farm child labor



ECDF by child sex; Hazardous farm child labor



Female



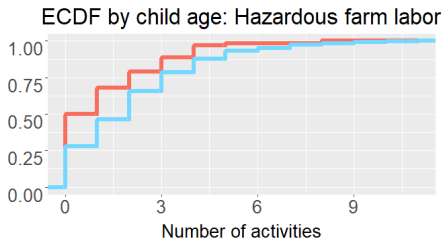
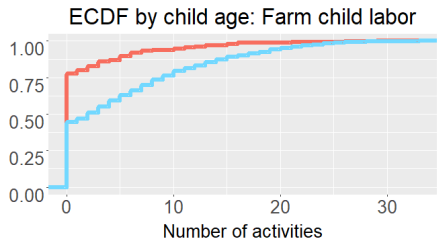
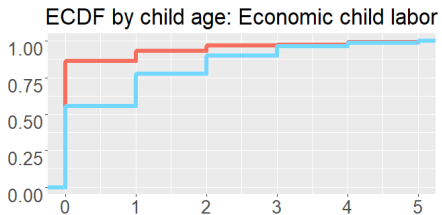
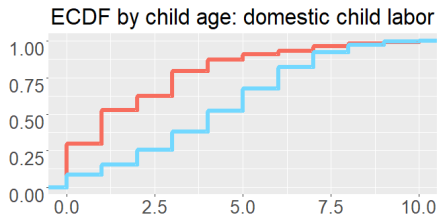
Male

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# Child labor differences between younger and older children



6 years old or below



Above 6 years old

**Table:** Age and gender differences in child labor activities

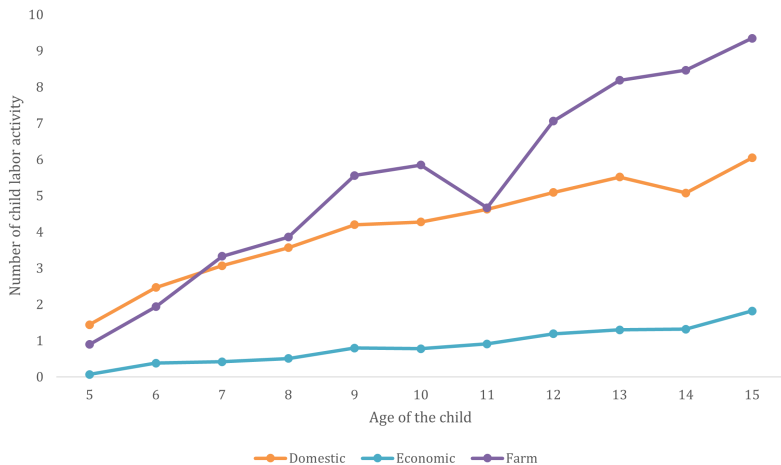
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<b>Number of activities</b>					
<b>Gender of the child</b>	<b>Sample size</b>	<b>Domestic</b>	<b>Economic</b>	<b>Farm</b>	<b>Hazardous</b>
Female	866	4.4	0.70	3.19	0.58
Male	900	3.35	0.74	6.25	1.50
<b>Age of the child</b>					
5	86	1.44	0.07	0.90	0.15
6	161	2.47	0.38	1.94	0.39
7	243	3.07	0.42	3.33	0.72
8	274	3.57	0.51	3.86	0.79
9	205	4.20	0.80	5.56	1.19
10	289	4.28	0.78	5.85	1.28
11	121	4.63	0.91	4.67	0.88
12	117	5.09	1.19	7.06	1.59
13	83	5.52	1.30	8.19	1.87
14	60	5.08	1.32	8.47	2.23
15	162	6.05	1.82	9.35	2.37

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# Child labor differences and child age



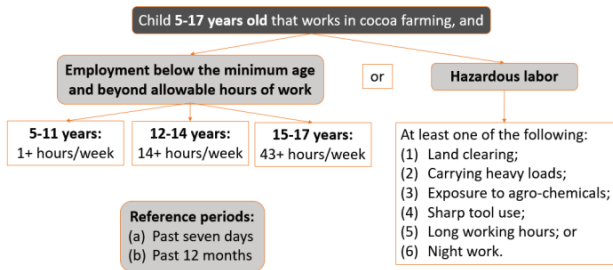
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# Farm child labor definition

**Figure 1:** Graphic Representation of Common Definition of Child Labor



# Child labor and schooling decisions

**Table:** Child labor and schooling: distribution

	<b>School only</b>	<b>Work and school</b>	<b>Work only</b>	<b>No work and no school</b>
Farm activities (%)	41.8	48.5	4.0	5.6
Hazardous farm activities (%)	55.4	34.9	3.3	6.4



**Table:** Results on multinomial logit model. Ref = School only

	<b>Work and school</b>	<b>Work only</b>	<b>No work and no school</b>
<b>Child demographic variables</b>			
Male	1.61***(0.13)	1.78*(0.29)	0.73(0.27)
Age	3.41**(0.54)	0.09**(1.04)	0.01***(0.93)
Age * Age	0.45(0.54)	18.92***(0.10)	183.57***(0.93)
<b>Household variables</b>			
Parent age	0.98(0.08)	0.62***(0.18)	0.86(0.16)
Biological parents (=Yes)	1.42**(0.17)	0.83(0.36)	0.85(0.33)
Household size	1.27***(0.07)	1.27(0.16)	0.93(0.16)
<b>Poverty scores and community variables</b>			
MPI score	1.03(0.09)	2.32***(0.20)	1.68***(0.19)
PPI score (converted to percent)	0.83**(0.09)	0.81(0.21)	0.70**(0.17)
Farm child labor in cluster	3.14***(0.09)	2.67*** (0.17)	1.06(0.17)

## Concluding remarks

- Prevalence and risk factors of farm child labor and schooling decisions in rural Côte d'Ivoire
- Child labor significantly varies by demographic factors
- Child labor and schooling decisions are precipitated by child-, households- and community- factors
- Social norms can partially explain the role of community factors
- Next steps: (i) streamline child labor definition; (ii) account for risk factors of other forms of child work; (iii) consider alternative modeling approaches



