



Impact of School Quality on Schooling and Child Labour in Selected Zones of Ivory Coast

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Abstract

The fight against child labour is a challenge for policy makers in developing countries. The objective of this study is to find other policies to reduce child labour. Thus, this research shows the effect of school quality on schooling and child labour in Ivory Coast. Primary data from the local survey on child labour and education policies in 2010 collected from a sample of 750 households and 1,338 children with support from PASRES were used. The estimation of two models (Heckman selection model and bivariate probit model) indicates that the presence of canteen and electricity in the school significantly increases the

probability of schooling for children and reduces the probability of their work. Thus, policy makers in addressing child labour need to focus on improving the learning environment for children by focusing on the construction of school canteens and electrification of schools from disadvantaged backgrounds.

Introduction

In most developing countries, especially in sub-Saharan Africa, child labour remains a concern. Indeed, 19.6% of children in this region are involved in work (ILO, 2017). In Ivory Coast, 20.1% of children are affected (INS, 2015). Therefore, the fight against child labour remains a challenge for national decision-makers if they are to ensure quality education throughout life.

Generally, households' decision to send their children to the labour market is influenced by income, uncertainty and relative labour and educational returns (Dammerta et al., 2018). Measures to combat child labour have focused on the development of laws prohibiting child labour. Increasingly, given the difficulties of enforcing laws in the fight against child labour, implementation of public policies is becoming urgent. That is why in different countries, several social programmes (*Food for Education in Bangladesh; Burkina Response to Improve Girls Chances to Succeed I and II; Progress Programme in Mexico, etc*) have been highlighted to promote schooling of children and keeping them in the education system. These programmes have been studied and have shown a positive effect on the reduction of child labour (Ambreen, 2017; De Brauw et al., 2015 ; Fabre and Pallage, 2015 ; Jacobus and Furio, 2014; Carvalho, 2012; Yasuharu, 2010). Some of these studies have shown mixed results. For example, Ximena et al. (2016) showed in the case of Nicaragua that cash transfers conditional on children's schooling reduced child labour in household chores and traditional agriculture. But this programme has increased child labour in commercial activities.

In Ivory Coast, these forms of targeted policies are rare. Nevertheless, since the 2000s, governments have stepped up campaigns aimed at reducing child labour by increasing infrastructure in schools. Unfortunately, there are no studies to analyse the impact of public policies on reducing child labour. In addition, most studies of child labour consider the household environment and ignore that of the school (Abou, 2014; Nkamleu, 2006; Diallo, 2001). However, there is evidence that improving the learning environment for children promotes their well-being at school (Gibbons and Olmo, 2011). This improvement of the school environment presupposes the presence of certain infrastructure (canteen, latrines, library, electricity, drinking water point, absence of multilevel class, etc) which are likely to improve school results. In other words, studies that show the effect of school quality on child labour are rare in Ivory Coast. Moreover, at a macroeconomic level, because of the low quality of the school, education has a negligible effect on economic growth in sub-Saharan Africa (Glewwe

et al., 2014). The quality of the school therefore becomes a challenge in explaining child labour. Thus, it appears important to know whether the quality of the school is a fundamental determinant in putting children to work in Ivory Coast.

The general objective of this study is to show the role of the quality of school in promoting the education of children and the fight against their participation in work. Indeed, in developing countries, the quality of the school is problematic if one refers to basic infrastructure in schools. Decision-makers in achieving education for all seek to send as many children as possible to school. The goal is to prevent them from being in the labour market. But increasingly, it is important to focus on the qualitative dimension of offering public education service.

Child labour

The definition of the term "child labour" is controversial (Biswajit and Runa, 2019 ; Ali et al., 2017; Pallage and Zimmerman, 2007; Fafchamps and Wahba, 2006; Basu and Van, 1998,). When we use this term throughout this study, we refer child labour to be abolished and hazardous work. In other words, work that cannot be performed by children given their age. In the literature, several definitions exist. For example, studies consider child labour as a labour force (Pallage and Zimmerman, 2007; Basu and Tzannatos, 2003). This notion can also be assessed from the specificity of the activity. In the Basu and Van (1998) model, for example, child labour is an economic activity. In addition, the definition of child labour can be specific to each country, each culture, otherwise the definition is not universal.

On analysis, the definition of child labour is not precise. Indeed, some economic activities outside of school hours or during school holidays can be beneficial for children (Ali et al., 2017). Similarly, non-economic activities (e.g., housework) can be performed by children for long hours and have a negative effect on their health and cognitive development. It then becomes harmful. Therefore, the definition of child labour must take into account the number of hours worked (Chiwaula, 2010; Dumas, 2012). Indeed, an activity can be listed as harmless but depending on the number of hours worked it can have adverse effects on health and school performance. Thus, the definition of child labour can be specific to each country and each culture, which shows that it is not universal and will always be the subject of debate.

In Ivory Coast, from the law we can retain the concept of child labour abolition and dangerous to define child labour (Table 1). Thus, the term "child labour to be abolished" refers to the exercise by a child of prohibited work, and more generally of types of work that should be eliminated as deemed undesirable both socially and morally according to national legislation. In addition, "hazardous work" is any activity that by its nature or type directly or indirectly results in harmful effects for the safety,

health (physical or mental) and moral development of the child. The danger can also be caused by excessive workload, the physical rigors associated with the task, or the number of hours, even when the activity is not dangerous.

In addition, in the definition of child labour, age is important. It lets you know who is considered a child. As shown in Table 1, compared to children aged 14-17, those 5-13 years old are prohibited from all forms of activity. Thus, in this analysis, the age group considered is 6-13 years. Indeed, the entry of official age in the first year of primary school is 6 years. In addition, the minimum age for admission to employment is 14 years. Thus, in this study, the age range considered for children is 6-13 years.

Table 1: Definition of forms of child labour from the laws in force in Ivory Coast

Forms of work	Worst forms of work		Child labour other than the worst forms of work	Regular/light work
Criteria according to national laws and conventions of the International Labour Organization (ILO)	Worst form other than dangerous work (forced labour, child trafficking...)	Dangerous work	Decree No. 96-204 of 7 th March 1996 Article 2: In apprenticeship more than 16 consecutive hours and during the night of 05 pm to 8 am Labour Code Article 23-8 (Minimum Age)	< or = at 8 h/day Article. 23-8 of the Labour Code (Minimum age)
	Convention 182 of ILO	Order No. 009 of 19 January 2012 revising the list of works Dangerous (Table A1) and Convention 182 of ILO		
5-13 years				
14-17 years				

Source: the author from IPEC, INS, (2014)



Unacceptable work according to ILO Conventions and the laws of Ivory Coast



Acceptable work according to the conventions of the ILO and the laws of Ivory Coast

School quality and relationship with child labour

The definition of quality is open to debate. This variable considers several indicators: school infrastructure or physical resources, resources for teachers, quality of teachers, etc. In most studies, school quality is measured by class size, teacher characteristics, or per capita education expenditures (Dynarski et al., 2013; Chetty et al. 2011; Futoshi,

2011; Valdenaire, 2011; Rivkin et al., 2005). These studies highlight the quality of school on student achievement considering some variables (class size, characteristic of teachers) as explanatory variables in the production function. But for Pedro et al. (2016), these variables do not reflect the quality of the school. Indeed, these variables are directly related to students' achievement. Nevertheless, these authors assume that once the class size, teacher characteristics of a school contribute to better student achievement, then this school is quality. In other words, this measure of the school gives an idea of its definition. In other words, school quality is one that enables children to improve their performance at school. However, some of the highlighted variables being debated are not included in the analysis of child labour. This is because child labour surveys do not consider the characteristics of schools. Another explanation may be that it is difficult to establish a causal link between these indicators and student performance.

The class size sometimes influences student achievement (Giambona and Mariano, 2018; Hans et al., 2014). Indeed, small classes can improve children's academic performance (Krueger, 2003). However, this result is not always obvious. Hanushek (2003) shows, for example, that there is no significant effect of class size. In the analysis, there are contradictions that can be explained by other factors. Abou (2016) considering this variable to explain child labour found that parents tend to send their children to overcrowded classrooms as they have no other choice (anything that reduces the child's probability of employment). However, these children usually have poor results. Thus, they will be likely to end up in the job market. In other words, if parents had a choice, they would send their children to schools where classes are small. These schools are not only more expensive but also distant from poor households. As a result, children in poor households are sometimes excluded from these schools if there is no state subsidy (Futoshi, 2011).

To take into account other ways of measuring school quality, some authors consider school infrastructure (Jacobus and Furio, 2014; Bacolod and Ranjan, 2008). These act synergistically and indirectly on student performance. Thus, parents are encouraged to educate children rather than put them in the labour market. In the Philippines, for example, Bacolod and Ranjan (2008) use two commodity groups to calculate two types of index: a physical installation index and a resource index for teachers. From a multinomial logit, the results showed that children attend schools that have electricity. However, the results do not statistically influence the choice of children's activity. This study identifies the quality of the school from some infrastructure in the school. It therefore considers the physical resources available in schools (latrines, electricity, concrete building material, drinking water supply, etc). It also considers the resources to the teachers (room for teachers, file lockers, computer, etc). However, remember that in this study, the authors calculate an index which is an aggregation of several variables. It therefore does not make it possible to assess the effect of each variable.

One of the Sustainable Development Goals (SDGs) is to ensure equal access to quality education for all and promote lifelong learning opportunities. In Ivory Coast, progress in this direction is underway. In fact, after the crisis of the 2010s, the policies of distributing school kits, building schools and classrooms have allowed an increase in the number of school children. For example, over the period 2013 to 2019, the number of schools increased from 11,233 to 14,246, a variation of about 27% (Table 2). During the same period, the number of students increased by 23%. In addition, apart from the number of canteens, which is decreasing (5.53%), other infrastructures such as the number of schools with water points (0.09%), the number of electrified schools (26.98%) and the number of schools with latrines (118.91%) have increased over the same period. Such increases in the number of these school quality indicators can reduce the failure rate, help keep children in school and reduce the number of children in the labour market.

Table 2: Presentation of some indicators of school quality

Years	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	Variation
Number of schools	11,233	11,869	12,537	13,195	13,784	14,246	26.82
Number of students	2,696,397	2,840,181	3,064,073	3,169,303	3,255,797	3,308,667	22.71
Water points	5,400	5,142	4,568	5,317	5,441	5,405	0.09
Electricity	2,958	3,130	3,112	3,378	4,736	3,756	26.98
Canteens	5,712	5,310	5,201	5,434	5,616	5,396	-5.53
Latrines	2,840	4,497	4,756	6,674	6,480	6,217	118.91

Source: Author calculation based on data from DSPS.

Finally, the presence of infrastructure in schools (canteens, latrines, drinking water points, electricity, etc) can be used to define the quality of the school. Otherwise, if these basic infrastructures can improve the performance of pupils, then they could also help reduce child labour. Despite the unavailability of corresponding data for the period 2013-2019 as shown in Table 2, Table 3 shows that child labour has declined. This decrease could be explained by the increase in the number of latrines in schools and the number of schools with electricity.

Table 3: Relationship between child labour and some school quality indicators

Years	2014	2016	Variations
Water points	5,400	4,568	-15.41
Electricity	2,958	3,112	5.21
Canteens	5,712	5,201	-8.95
Latrines	2,840	4,756	67.46
Child labour	28.2	15.00	-46.81

Source: Author calculation based on data from DSPS

On analysis, it would be important to highlight the effect of these basic infrastructure on schooling and child labour. Studies linking child labour and school quality are rare. Our contribution to this study is therefore to estimate the effects of school quality on schooling and child labour in Ivory Coast.

Data source

Increasingly, thanks to national policy makers and some international bodies such as the International Labour Office (ILO), child labour surveys exist (the 2002 Household Living Standards Survey, 2008; Child Labour 2005; National Survey on the State of Employment and Child Labour 2013, etc). However, few incorporate a school questionnaire to highlight the effect of availability of certain infrastructure in schools on school enrolment and child labour. In 2010, to contribute to the understanding of the causes of child labour, primary data were collected thanks to the financial support of the Strategic Support Programme for Scientific Research (PASRES¹) within the framework of the project "Education and Child Labour in Ivory Coast ". This survey made it possible to collect data in two localities with different socio-economic realities of Ivory Coast: Soubre in Forest zone and Bouake in Savanna zone.

Located in southwestern Ivory Coast, Soubre is one of the largest cocoa producing areas with many agricultural employment opportunities. According to the National Institute of Statistics (INS, 2014), the agricultural sector employs the bulk (53.4%) of the children involved in child labour. The poverty incidence in that area is below the national rate (INS, 2015) but, according to the 2014 National Survey on Child Labour (INS, 2014), the proportion of children involved in child labour is still high (over 20%). In 2008, the initial national diagnostic survey showed that 26.5% of children in this area had never been to school, which increased the family labour force in cocoa plantations (Prime Minister's Office, 2008). In addition, according to the Department of Strategies, Planning and Statistics (DSPS, 2014), class sizes in that area were above the UNESCO standards and above the national average (40 and 44 pupils per class, respectively). For instance, in the urban area of Soubre, there were schools with 63 pupils per class, which could only have a negative impact on the quality of education.

Bouake, for its part, is a region located in the centre of Ivory Coast. From 2002 to 2011, this region was out of the control of the national government due to the political crisis that prevailed during that time. The poverty incidence in that area is high (54.9%), according to the 2015 Household Living Standards Survey (INS, 2015). In 2013, the National Survey on Employment and Child Labour showed that 30% of the children were involved in child labour, 31% of whom were girls and 28.8% boys

1 PASRES is Strategic Support Programme for scientific research in Ivory Coast. PASRES has specific strategic goals which are consistent with the Sustainable Development Goals (SDGs).

(INS, 2014).) In Bouake, classes have 50 children on average, and multilevel classes can also be found there (DSPS, 2014). All this is likely to be an obstacle to achieving the goal of quality education for all and continuous education opportunities. In other words, child labour is likely to increase due to lack of school facilities or due to poor school quality.

Based on a household survey that used an ILO/SIMPOC methodology, this study was designed to focus on school quality. To consider the importance of geographical area, it focused on two strata: one in a Savanna area (Bouake) and the other in a Forest area (Soubre). Each stratum was sub-divided into two areas of residence: urban and rural. This means that the study used a two-stage stratified sample. At the first stage, 15 enumeration districts (EDs) were drawn in each stratum proportionately to their size, with the size of an ED corresponding to the number of households residing there; that is 30 EDs for the two strata, with 10 selected from the urban area and five (5) from the rural area in each stratum. A systematic sample was drawn from each ED. This technique made it possible to obtain the list of households that served as a sampling frame for the second-stage sampling. At this latter stage, a fixed number of households were selected from each one of the lists obtained from the enumeration districts, and in each one of these, households with children aged between 6 and 14 years were identified; some of the households qualified for the study, while others did not. In each enumeration district, 25 households were selected into the sample.

The sampling frame was the complete list of the enumeration districts in both the Bouake and the Soubre areas, a list compiled as part of the National Population and Housing Census (RGPH1998) carried out in 1998 by the National Institute of Statistics. The sample was selected in such a way that it achieved accuracy in terms of the proportion of individuals interviewed (Ardilly, 2006). For example, for a 10% accuracy, the sample size should be at least 100. That is why the survey in this study covered a sample of 750 households, 375 of which were drawn from the savanna area and 375 from the forest area; in either area 250 households came from the urban area and 125 from the rural.

Conclusion and policy implications

The fight against child labour remains a major challenge in policies to reduce inequalities in several African countries south of the Sahara. Therefore, appropriate policies are needed. Education seems so be an effective means of reducing child labour. Unfortunately, an essential aspect such as the quality of the school is not always considered because of its measurement challenges. Therefore, to participate in this debate and look for other ways to fight against child labour, this study aims to show the effect of the quality of school on the work and schooling of children in

Ivory Coast. Thus, using primary data collected through the local child labour survey and educational policies, Heckman's bivariate probit model and selection model yielded several results.

The most important result relates to the quality of the school. Improvement of the quality of the school pushes heads of households to educate their children regardless of gender. In other words, schools of poor quality are a negative signal for households especially since they do not have the choice of school for their children. Therefore, the unavailability of some basic infrastructure (canteens, latrines, electricity, drinking water points, etc) in schools sometimes pushes children out of the education system. This result shows the importance of the quality of the school in the explanation of the decision of the choice of the activity of the children. From this basic infrastructure, the availability of canteen and electricity in schools significantly favours the schooling of children. These basic infrastructures can serve as an incentive mechanism for the schooling of children for poor households. In addition to the quality of the school, most results also show that regardless of the model, moving from lower to higher education reduces the likelihood of child labour. Moreover, the size of the class positively affects the schooling of children, especially that of girls.

The contribution of this research to the analysis of child labour is considering the quality of the school. This is measured by a set of infrastructure. Their presence in the school can influence children's choice of activity. Thus, this study with the use of two econometric models is in tandem with most research work. It shows that depending on the model and available data, the results may differ from one study to another.

In the analysis, policy makers need to focus on the school environment to significantly reduce child labour. The focus is on providing basic services such as canteens, toilets, drinking water points, etc. Specifically, the focus should be on the construction of canteens in schools in disadvantaged areas. This would be a way for the government to encourage poor parents to educate their children. In addition, given its importance in children's learning, national decision-makers must provide electricity to schools in poor communities. This could start with the use of solar energy that can support education in remote areas. These provisions will achieve the goal of quality education for all throughout life by year 2030.

References

- Abou, P.E. 2014. "A re-examination of determinants of child labour in Ivory Coast". Nairobi: African Economic Research Consortium Paper No. 289.
- Abou, P.E. 2016. "Does domestic work affect the academic performance of girls in primary school in Ivory Coast? Empirical evidence from Probit model". *European Scientific Journal*, 12(35): 368–381.
- Ali, R., Jeffrey, A. and Nicolaus, T. 2017. "Child labour and household land holding: Theory and empirical evidence from Zimbabwe". *World Development*, 100: 45–58.
- Ambreen, F. 2017. "The effect of globalization and credit market imperfections on the incidence of child labour". *International Journal of Social Economics*, 44(8): 998–1017.
- Aturupane, H., Glewwe, P. and Wisniewski, S. 2013. "The impact of school quality, socio-economic factors, and child health on students' academic performance: Evidence from Sri Lankan primary schools". *Education Economics*, 21(1): 2–37.
- Bacolod, M., and P. Ranjan. 2008. "Why children work, attend school, or stay idle: The roles of ability and household wealth". *Economic Development and Cultural Change*, 56(4): 791–828.
- Baland, J., and J. Robinson. 2000. "Is Child Labor Inefficient?" *Journal of Political Economy*, 108 (4): 663–679.
- Basu, K. and Z. Tzannatos. 2003. "Child Labor and Development: An Introduction". World Bank Economic Review, 17(2):145–146.
- Basu, K. and Van, H. P. 1998. "The economics of child labour". *American Economic Review*, 17(2): 412–427.
- Bernal, P., Nikolas M. and Javaeria, A.Q. 2016. "Estimating effects of school quality using multiple proxies". *Labour Economics*, 39: 1–10.
- Biswajit, C. and Runa, R. 2019. "Introduction". In: *Economics of child labour*. Singapore: Springer, pp. 1–6.
- Boutin, D. 2012. *Essay on poverty vulnerability and child labour. PhD dissertation in economics*. University of Montesquieu Bordeaux IV, December 7, 2012.
- Prime Minister's Office. 2008. "Initial national diagnostic survey". Executive secretariat. Abidjan, June 2008.
- Carvalho, F. 2012. "Household income as a determinant of child labour and school enrolment in Brazil: Evidence from a social security reform". *Economic Development and Cultural Change*, 60(2): 399–435.
- Chetty, R., Friedman, J.N., Hilger, N., Saez, E., Schanzenbach D. and Yagan, D. 2011. "How does your kindergarten classroom affect your earnings? Evidence from Project STAR". *The Quarterly Journal of Economics*, 126 (4): 1593–1660.
- Chiwaula, L.S. 2010. "Household poverty and child labor decisions in Malawi". In R.K.Q. Akee., Edmonds, E.V. and Tatsiramos, K. ed., *Child Labor and the Transition between School and Work*. Bingley: Emerald Group Publishing Limited.
- Dammerta, A. C., Jacobus, D. H., Eric, M. and Furio, C. 2018. "Effects of public policy on child labour: Current knowledge, gaps, and implications for program design". *World Development*, 110: 104–123.

- De Brauw, A., Daniel, O.G., Johon, O. and Shalini, R. 2015. "The impact of Bolsa Família on schooling". *World Development*, 70: 303–316.
- Dumas, C. 2012. "Does Work Impede Child Learning? The Case of Senegal". *Economic Development and Cultural Change*, 60 (4): 773–793.
- De Janvry, A., F. Frederico, E. Sadoulet and V. Renos. 2006. "Can conditional cash transfer programmes serve as safety nets in keeping children at school and from working when exposed to shocks"? *Journal of Development Economics*, 79(2): 349–373.
- Diallo, Y. 2001. "Children and their participation in the labor market in Ivory Coast". PhD dissertation in economics. University of Montesquieu Bordeaux IV, 2001.
- DSPS. 2014. "Primary statistics yearbook 2014–2015". Department of strategies, Planning and Statistics, Abidjan.
- Dynarski, S., Hyman, J.M. and Schanzenbach D.W. 2013. "Experimental evidence on the effect of childhood investments on postsecondary attainment and degree completion". *Journal of Policy Analysis and Management*. 32(4): 692–717.
- Fafchamps, M. and Wahba, J. 2006. "Child labour, urban proximity and household composition". *Journal of Development Economics*, 79(2): 374–397.
- Fabre, A. and Pallage, S. 2015. "Child labour, idiosyncratic shocks, and social policy". *Journal of Macroeconomics*, 45: 394–411.
- Futoshi, Y. 2011. "School quality, clustering and government subsidy in post-apartheid South Africa". *Economics of Education Review*, 30(1): 146–156.
- Giambona, F. and Mariano, P. 2018. "School size and students' achievement: Empirical evidence from PISA survey data". *Socio-Economic Planning Sciences*, 64: 66–77.
- Gibbons, S., and S. Olmo. 2011. "School quality, child well-being and parents' satisfaction". *Economics of Education Review*, 30(2): 212–331.
- Glewwe, P., E. Maïga and Z. Haochi. 2014. "The contribution of education to economic growth: A review of evidence with special attention and application to Sub-Saharan Africa". *World Development*, 59: 379–393.
- Goulart, P. and S.B. Arjun. 2008. "Child labour and educational success in Portugal". *Economics of Education Review*, 27(5): 575–587.
- Guarcello, L., F. Mealli, and F.C. Rosati. 2010. "Household vulnerability and child labor: the effect of shocks, credit rationing, and insurance". *Journal of Population Economics*, 23: 169–198.
- Hans, L., Maria, H. and Jaap, S. 2014. *School size effects revisited: A qualitative and quantitative review of the research evidence in primary and secondary education*. New York: Springer.
- ILO. 2017. "Global estimates of child labour: Results and trends, 2012-2016". International Labour Organization (ILO), Geneva.
- INS. 2014. "National survey on the employment and child labour situation". National Institute of Statistics (INS), Abidjan.
- INS. 2015. "Household standard of living survey in Ivory Coast". National Institute of Statistics (INS), Abidjan.
- Jacobus, H. C. Furio. 2014. "Does promoting school attendance reduce child labour? Evidence from Burkina Faso's BRIGHT project". *Economics of Education Review*, 39: 78–96.
- Krueger, A. 2003. "Economic considerations and class size". *Economic Journal*, 113: 34–63.

- Luiz, R. L., Shirley, M. and Marianne, W. 2015. "Child labour and the wealth paradox: The role of altruistic parents". *Economics Letters*, 130: 80–82.
- Marshall, J.H. 2011. "School quality and learning gains in rural Guatemala", *Economics of Education Review*, 30(6): 1445–1455.
- Nkamleu, G.B. 2006. "Poverty and child farm labour in Africa: Wealth paradox or bad orthodoxy". *African Journal of Political Economy*, 13(1): 1–24.
- Pallage, S. and Zimmerman, C. 2007. "Buying out child labour". *Journal of Macroeconomics*, 29(1): 75–90.
- Pedro, B., Nicolas M. and Javaera, A.Q. 2016. "Estimating effects of school quality using multiple proxies". *Labour Economics*, 39: 1–10.
- Ravallion, M. and Q. Wodon. 2000. "Does child labour displace schooling? Evidence on behavioral responses to an enrolment subsidy". *The Economic Journal*, 110 (462): 158–175.
- Rivkin, Steven G., Hanushek, Eric A., Kain, John F. 2005. "Teachers, schools and academic achievement". *Econometrica* 73(2): 417–458.
- Stephen, G. and S. Olmo. 2011. "School quality, child well-being and parents' satisfaction". *Economics of Education Review*, 30(2): 312–331.
- Valdenaire, M. 2011. "Essay in economics of education". School of advanced studies in social science. PhD dissertation in economics, Paris, 2011.
- World Bank. 2004. Strengthening the foundation of education and training in Kenya. Report No. 28064-KE, Washington DC: World Bank.
- Ximena V. D., Norman V. L. and Tomoko, W. 2016. "The impact of conditional cash transfers on the amount and type of child labour". *World Development*, 80: 33–47.
- Yasuharu, S. 2010. "Credit programme participation and child schooling in rural Malawi". *World Development*, 38(4): 567–580.



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