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Child Labour Background, Challenges, and the Role of Research in Achieving Sustainable Development Goal 8.7

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Child Labour

Background, Challenges, and the Role of Research in Achieving Sustainable Development Goal 8.7

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Abstract

The focus of this report is on child labour, which is a main component of Sustainable Development Goal (SDG) 8.7. After providing a brief background on child labour, this report provides an overview of the factors that research has identified as main contributors to child labor, categorized broadly as either microeconomic factors, macroeconomic factors, or other household factors. Microeconomic factors include household poverty, market imperfections, and the role of education in shaping outcomes while macroeconomic factors include economic growth and globalization. Other relevant parental and household factors are also discussed, such as altruism and cultural norms. The report next provides an overview of policies aimed at combating child labor, including policies related to the legal framework, poverty reduction initiatives, and access to education. A critical evaluation of the indicator used to measure child labor is conducted, focusing on standardization, measurement accuracy, conceptualization, and areas for potential improvement. Finally, the report identifies major challenges faced in eradicating child labor.

Keywords: child labour, policy, sustainable development goals,

JEL Classification: J22; J13; D13; O12.

1 Introduction

Sustainable Development Goal (SDG) 8.7 - “End modern slavery, trafficking and child labour” - has the express target to “(t)ake immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms” (UNSD, 2021). The focus of this paper is on one specific aspect of SDG 8.7, namely child labour. Child labor is not a monolithic phenomenon but a complex web of interconnected challenges. It can take many different forms, ranging from hazardous factory work to subsistence agriculture to work to domestic work in other households. Child labour is often framed as a problem affecting the Global South, and many are familiar with stories of children toiling in sweatshops or working as labourers on cocoa farms, for example. Official statistics on child labour in the Global North are difficult to come by, but there is increasing evidence that child labour is also a problem there. For example, in a recent press release the United States Department of Labor stated that the number of children employed illegally by companies in the country had increased by 69% between 2018 and 2022 (U.S. Department of Labor, 2023). Other examples are child actors, who have historically been exempted from child labour laws in the United States, and child influencers on social media (sometimes referred to as “kidfluencers”) who are potentially at risk for exploitative child labour (Masterson, 2020). Indeed, child labour in the Global North remains somewhat of a blind spot for researchers and policymakers alike.

The purpose of this paper is to provide an overview of existing research into the causes of child labour, critically evaluate the related target indicator 8.7.1 - “Proportion and number of children aged 5–17 years engaged in child labour, by sex and age” (ibid) – and discuss the role of research in attaining SDG 8.7. The drivers of child labour are numerous, including for example poverty, market imperfections, lack of education, and parental preferences, among others. There are also significant challenges involved in measuring child labour, and these challenges are both practical and conceptual in nature. Research into policies aimed at eliminating child labour demonstrates that a multi-pronged approach to the problem is required, and that one must be cautious when implementing such policies as there is a risk of unintended consequences.

The structure of the paper is as follows: in the next section, the definition of child labour will be discussed, along with background information on child labour statistics from the years 2000 to 2020. In section 3, an overview of the research into the causes of child labour is presented, divided into microeconomic factors, macroeconomic factors, and other parental and household factors. Section 4 discusses the role of research in achieving SDG 8.7, while in section 5 the target indicator 8.7.1 is critically evaluated, both in terms of measurement and conceptualization. Section 6 discusses some of the major challenges in achieving SDG 8.7, and section 7 concludes the paper.

2 Background

2.1 What is child labour?

The terms "child work" and "child labour" are often used interchangeably. However, there is a distinction between these two, with child labour specifically being targeted for elimination. The main difference is that not all types of work performed by children are strictly defined as child labour according to the definition set forth by the International Labour Organization (ILO). Child labour, broadly defined, is child work that "is mentally, physically, socially or morally dangerous and harmful to children; and/or interferes with their schooling by: depriving them of the opportunity to attend school; obliging them to leave school prematurely; or requiring them to attempt to combine school attendance with excessively long and heavy work" (ILO, 2021).

Moving beyond a conceptualization of child work and child labour towards a means of measuring the phenomena, the ILO categorizes working children in to three types: children in employment, child labourers, and children in hazardous work. The first category includes all types of paid productive activity as well as certain types of non-paid productive activity, such as the production of goods for own household use. One activity that is not included in this definition is domestic work/chores performed within the child's own household, with the exception of domestic work that is considered to be hazardous. Further, both legal and illegal activities are included in definition of productive activities. The category "child labourer" is more restrictive, excluding certain types of children in employment. Children who are older than age eleven and work for less than 14 hours per week are not considered to be child labourers, given the children are not engaged in hazardous work. Further, children over the age of fourteen are not considered child labourers, again given they are not engaged in hazardous work.

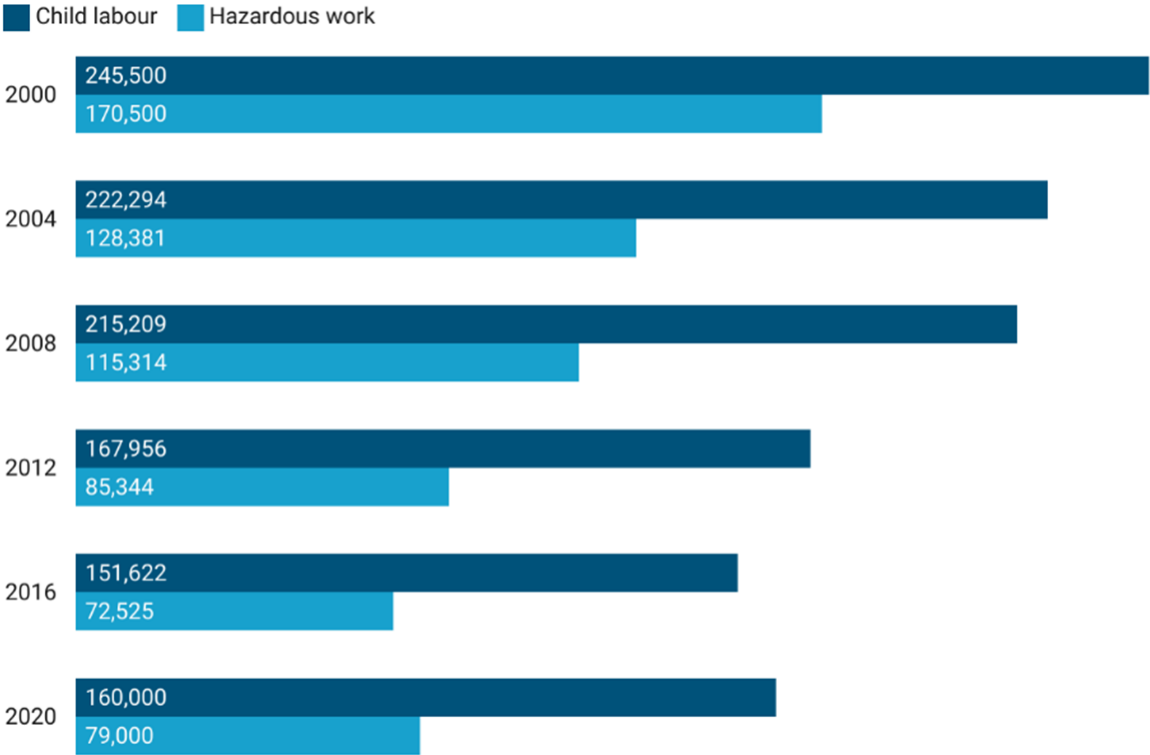
Finally, "hazardous work" is considered one of the worst forms of child labour, and is defined as "work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children" (Convention 182, Article 3(d), ILO, 2000). The other worst forms of child labour are all forms of slavery or practices similar to slavery, prostitution and pornography, and illicit activities (ibid). More recently, the category "hazardous unpaid household services" has been added to the category of child labour, and includes unpaid housework that entails long hours and/or unsafe working conditions. Examples of hazardous work include work involving the use of heavy equipment or dangerous tools, hard physical work, work set in dangerous environments such as mines, etc. Even work on the family farm can be potentially hazardous, with work involving exposure to dangerous chemicals, long hours, dangerous equipment, etc. (ILO/UNICEF, 2021).

More detailed definitions of the different categories of working children, including the relevant ILO conventions, can be found for example in ILO (2017).

2.2 Where are we now? Statistics and measurement

According to the latest statistics from the ILO and UNICEF (2021) (for the year 2020), there are approximately 160 million children aged 5 to 17 participating in child labour. This is estimated to be close to 10% of the global population of children in this age group. Almost half of these children, about 79 million, are working in hazardous conditions.

Figure 1: Number of children in child labour and hazardous work (in '000), 2000 - 2020



Source: See note in Table 1 • Created with Datawrapper

Figure 1 illustrates the global trends in child labour and hazardous child labour, respectively, for the years 2000, 2004, 2008, 2016 and 2020 (i.e., the years data has been collected). The aggregate figures show that there was a decline in all types of child labour between 2000, when the ILO started measuring the phenomenon, and 2016, both in terms of the percentage of children working and in absolute numbers. However, this trend was halted in 2020, with the percentage of children in various types of child labour remaining more or less constant, while the number of child labourers in absolute terms actually rose. The statistics also show that the incidence of hazardous work fell at a somewhat slower rate between 2000 and 2016 than child labour in general, and also rose in absolute terms in 2020.

Table 1: Estimates of various forms of child work (5 – 17 years old) by region, years 2000 - 2020

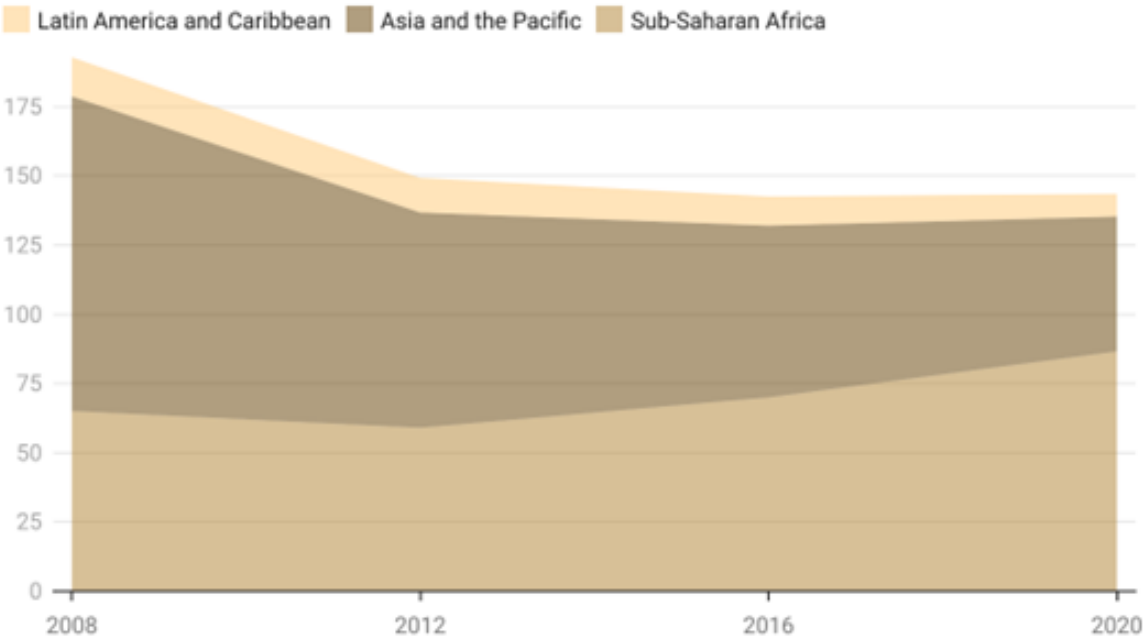
	<u>Children</u>	<u>Children in employment</u>		<u>Child labour</u>		<u>Hazardous work</u>	
	('000)	('000)	%	('000)	%	('000)	%
World							
2000	1,531,400	351,900	23.0	245,500	16.0	170,500	11.1
2004	1,566,300	322,729	20.6	222,294	14.2	128,381	8.2
2008	1,586,288	305,669	19.3	215,209	13.6	115,314	7.3
2012	1,585,566	264,427	16.7	167,956	10.6	85,344	5.4
2016	-	218,019	13.8	151,622	9.6	72,525	4.6
2020	1,674,897	222,088	13.3	160,000	9.6	79,000	4.7
Asia and the Pacific							
2000	844,600	178,200	21.1	-	-	-	-
2004	-	-	-	-	-	-	-
2008	853,895	174,460	20.4	113,607	13.3	48,164	5.6
2012	835,334	129,358	15.5	77,723	9.3	33,860	4.1
2016	-	90,236	10.7	62,077	7.4	28,469	3.4
2020	866,645	67,960	7.8	48,700	5.6	22,200	2.6
Latin America and Caribbean							
2000	139,300	27,700	19.9	-	-	-	-
2004	-	-	-	-	-	-	-
2008	141,043	18,851	13.4	14,125	10.0	9,436	6.7
2012	142,693	17,843	12.5	12,505	8.8	9,638	6.8
2016	-	16,062	11.2	10,461	7.3	6 278	4.4
2020	136,219	12,422	9.1	8,200	6.0	5,500	4.0
Sub-Saharan Africa							
2000	207,200	66,100	31.9	-	-	-	-
2004	-	-	-	-	-	-	-
2008	257,108	84,229	32.8	65,064	25.3	38,736	15.1
2012	275,397	83,570	30.3	59,031	21.4	28,767	10.4
2016	-	95,931	30.7	69,985	22.4	30 460	9.8
2020	361,898	115,766	32.0	86,600	23.9	38,600	10.7
Other regions							
2000	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-
2008	334,242	28,129	8.4	22,473	6.7	18,978	5.7
2012	332,143	33,656	10.1	18,697	5.6	13,078	3.9
2016	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-

Data for 2000 compiled from ILO (2002), data for 2008 compiled from Diallo et al (2010), data for 2012 compiled from Diallo et al (2013), data for 2016 compiled from ILO (2017; 2018), and data for 2020 compiled from ILO/UNICEF (2021).

Table 1 shows statistics for the different types of child work for children aged 5 to 17 for the years 2000, 2004, 2008, 2016 and 2020, broken down by region where the data has been available. These figures demonstrate that the global pattern partially obscures regional disparities. For example, while the percentage of children in employment fell by almost half between 2000 and 2016 in both Asia and the Pacific and in Latin America and the Caribbean, it fell by only a few percentage points in sub-Saharan Africa. In fact, the absolute number of children in employment actually increased in sub-Saharan Africa, while it fell substantially in Asia and the Pacific, and fell marginally in Latin America and the Caribbean. As a result, in 2016 sub-Saharan Africa had overtaken Asia and the Pacific as the region with the greatest number of child labourers. This trend was further exacerbated in 2020, with the number of child labourers in sub-Saharan Africa continuing to rise, both in absolute terms and as a percent of all children. Indeed, the region now accounts for more than half of all child labourers globally. The trends for the three major regions are illustrated in Figure 2.

According to the ILO (2017), countries affected by armed conflict have on average a 77% higher incidence of child labour, and a 50% higher incidence of hazardous work. These facts can in part explain Africa’s persistently high child labour statistics; however, conflict and disaster are also problems in many areas outside of Africa.

Figure 2: Child labour (in millions) by region, 2008 - 2020



Source: See note in Table 1 • Created with Datawrapper

As mentioned earlier, own domestic housework is not included in the definition of child work/labour. More recently, however, the ILO has begun to attempt to measure the number of children involved in this activity. The focus in this case is on children ages 5 – 14 who spend more than 20 hours per week on household chores. According to estimates from 2016, 33.9 million girls and 19.7 million boys fall into this category. The subset of children working 43 hours per week or more is 4.3 million girls and 2.4 million boys (ILO, 2018). Many children who spend more than 20 hours a week on household chores also participate in child work: 7.4 million girls and 5.7 million boys combine these activities. While the SDG 8.7 focuses on children aged 5 – 17, much of the earlier work on child labour focused on the age group 5 – 14. This is presumably because children aged 15 – 17 were only considered to be child labourers if they were engaged in hazardous work. Excluding this group, however, leads to a significant underreporting of the incidence of hazardous work, as can be seen by comparing table 1 with table A1 in the appendix.¹

Based on the available statistics, the ILO/UNICEF (2021) has estimated that the number of children in child labour will be 140 million in 2025, with many of these children engaging in hazardous work. In other words, far from goal of elimination set out by SDG 8.7. Further, these estimates were made before the advent of the covid-19 pandemic and are therefore likely to be overly optimistic.

2.3 Where are child labourers active?

Another important characteristic of child labour is where it takes place. Often the term child labour conjures images of children employed in industrial settings, such as factories. However, most child labour globally takes place in the agricultural sector, accounting for approximately 70% of child labourers in total. Only approximately 10% of child labourers are active in the industrial sector, while about 20% are active in the service sector (ILO/UNICEF, 2021). Further, most child labourers work within the family, either on the family farm or for a family enterprise (ibid). As a result, the number of children employed in the formal sector is small compared to the informal sector.

Finally, child labour and schooling are not mutually exclusive. The ILO and UNICEF (2021) estimates that 65 percent of child labourers aged 5 to 17 attend school (72 percent in the age group 5 – 11). However, many of these children risk an educational penalty as a result of the demands placed on their time and energy by their participation in child labour (ILO, 2017; Chudgar et al, 2022). Further, children participating in hazardous labour are less likely to attend school, with only 56 percent in the age group 5 – 17 doing so (ILO/UNICEF, 2021), and face an even greater educational penalty (Chudgar et al, 2022).

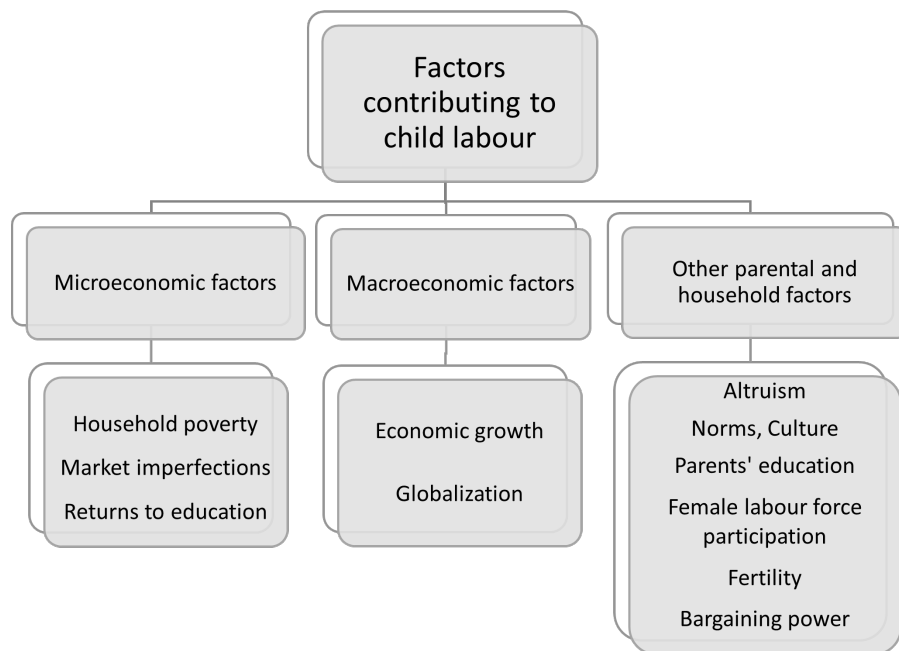
¹A discussion of how SDG 8.7 relates to other SDGs is also included in the appendix.

3 Research on causes of child labour

There is a substantial body of research into the root causes of child labour, both in terms of theoretical research and empirical research. For detailed literature surveys of the economic research on child labour, see Basu (1999) and Congdon Fors (2012). However, as alluded to above, this research has almost exclusively focused on the Global South, or historical cases from the Global North. As a result, there is a significant gap in our knowledge about the root causes of child labour in the Global North, and consequently how and if these causes may differ from those in the Global South.

One can broadly categorize the research into three categories: microeconomic factors, macroeconomic factors, and other household and parental characteristics. The third category is most closely related to microeconomic factors, but with more focus on behaviours rather than strictly economic factors. Some of the key topics are outlined in Figure 3 and discussed below.

Figure 3: Key topics in research on child labour



3.1 Research focused on microeconomic factors

3.1.1 Household poverty

The seminal paper theoretical paper on poverty and child labour is that of Basu and Van (1998). In this paper, they develop a model to explain how child labour can arise when adult wages are

low. Although the model has been criticized for resting on the assumption that child labourers receive wages in the formal sector, the paper is nevertheless important for a number of reasons. The paper sparked a renewed interest in the topic of child labour within economics and therefore contributed to an upswing in the amount of research into the topic. The paper also highlighted the relationship between adult wages and child labour. Another important contribution is that the paper illustrated that policies such as bans or boycotts of child labour will not be successful if adult wages are not sufficient to ensure that there will be no subsistence poverty.

Several papers have attempted to determine the relationship between household income and child labour. This has proven to be more difficult than may appear at face value, at least when looking at cross-sectional data, due to a number of potential complications. There could, for example, be systematic differences between poor and rich households, non-linearities in the relationship between income and child labour, and potential endogeneity of child labour in household income, i.e., all else equal, child labourers will contribute to household income and therefore these households will appear to be relatively better off. One way to partially address these problems is to follow the same households over time and investigate how shocks to household income affect child labour. These shocks can be either positive (such as an unexpected transfer from the government) or negative (such as crop failure), and can originate from everything from local to global conditions. Several papers have confirmed the negative relationship between child labour and poverty using this method (Beegle et al., 2006; Cogneau and Jedwab, 2012; Dammert, 2008; Duryea et al., 2007; Edmonds, 2006a; Edmonds and Schady, 2012). Bhalotra (2007) looks instead at the wage elasticity of child labour supply and finds evidence for compelling poverty in the case of boys, but not for girls. Another possibility is to separate out parental income from child income. In cases where data is available to make this is possible, the research has again generally found a negative relationship (Dammert, 2005; Kambhampati and Ranjan, 2005).

3.1.2 Market imperfections

There is a large body of research on the impact of different types of market imperfections on child labour. The key markets of interest are the credit market, the labour market, and the land market, with the last two being particularly relevant in rural settings.

Credit markets

The research on market imperfections that is most closely linked to household poverty is that which looks into the role of credit markets in child labour. In theory, if the expected return to education is higher than the interest rate charged on a loan, then it should be rational for a household to borrow against future earnings to allow for the child to attend school. Indeed, Psacharopoulos (1997) found evidence that the returns to education were on average higher than the returns to physical capital (which is a proxy for the interest rate) in all regions of the world. This should imply that on average, investing in education should be profitable for the household (why this relationship may

not hold for all households is discussed more in the next paragraph below). Theoretical models have illustrated how restricted access to credit can lead to increased child labour (Ranjan, 1999; Baland and Robinson, 2000).

One challenge for empirical research has been difficulty of measuring access to credit. Further, the results of the empirical research have been somewhat mixed. In line with the theoretical models, a number of studies have found evidence that access to credit reduces child labour (Beegle et al., 2003; Dehejia and Gatti, 2002; Guarcello et al., 2010). However, some studies have found the opposite result, particularly in the case where households have gained access to microcredit (Hazarika and Sarangi, 2008; Maldonado and González-Vega, 2008; Edmonds and Theoharides, 2020; Hossain, 2023). This in turn may relate to the somewhat counterintuitive fact that opportunities to employ children may not exist at very low levels of household income/wealth (keeping in mind that most children are employed within the family). If the constraint on employing children is eased at a lower level of income than the constraint on attending school, then small improvements in income and/or access to credit may increase rather than decrease child labour. Further, given that schooling often entails direct costs, it is possible that school attendance and child labour could rise simultaneously if children work to offset education costs (de Hoop et al, 2019).

Land and labour markets

While poverty is often seen as the root cause of child labour, statistics on working children have shown that children from land-rich households tend to have higher participation in child labour and lower school enrollment than children from land-poor households. Given that land is often one of the most significant stores of wealth for rural households in developing countries, Bhalotra and Heady (2003) dubbed this empirical observation the wealth paradox. They argue that the paradox arises as a result of land and labour market imperfections; when land markets are imperfect, households have difficulty renting out excess land and when labour markets are imperfect the household has difficulty hiring (adult) labourers from outside the household to work on the land. As a result, the household is more likely to resort to child labour to meet the ensuing labour shortage. These results are formalized in a theoretical model and tested empirically, finding support for the model.

Extending the above analysis, Basu et al (2010) derive a theoretical model where the relationship between landholdings and child labour exhibits an inverted-U shape, i.e., child labour increases with landholdings to a certain point, then begins to fall again. Several empirical papers have investigated the wealth paradox and have confirmed evidence of an increasing or U-shaped relationship between child labour and landholdings (Basu et al, 2010; Bhalotra and Heady, 2003; Dumas, 2007, 2013; Ganglmair, 2005; Oryoie et al, 2017). Similarly, recent research has shown that strengthening a household's property rights to their land may increase the labour participation of the child expected to inherit the land (Congdon Fors et al, 2019). Finally, research has shown that the wealth paradox is not restricted to land, but can also be relevant more broadly for productive assets (Edmonds and Theoharides, 2020).

There is a limited amount of research comparing the relative impact of different types of market imperfections on child labour. Dumas (2020) investigates the role of market imperfections when there is a positive productivity shock in agricultural output, and finds that functioning labour markets are more important for smoothing child labour than credit markets.

3.1.3 Returns to education

As mentioned above, another area that has received attention is relationship between returns to schooling and child labour. Emerson and Knabb (2006) develop a theoretical model where the returns to schooling can differ between households depending on whether the household is high or low status. There could be several reasons why the returns to education could differ between groups. There may be differences in the supply of schooling within a country, which may in turn depend on regional or socioeconomic differences. It could also be that some groups face lower returns to schooling on the labour market, due to factors such as discrimination or imperfect information. Regardless of the underlying cause, Emerson and Knabb refer to the phenomenon of lower status households receiving lower returns to education as inequality of opportunity. They then argue that in many cases, policymakers should focus on improving the returns to education for the low status households, rather than target child labour per se.

Empirical evidence tends to support the idea that school quality is an important factor in child labour. In a well-known study by Chaudhury et al. (2006), enumerators were sent to schools to perform random unannounced spot checks. The enumerators found that up to 27% of teachers were not present at school when they should be, and that even when the teachers were present, many were not actually teaching. Similarly, a more recent paper investigating teachers in seven sub-Saharan African countries found that on average, 44% of teachers were absent from their classes at the time the enumerator visited (Bold et al, 2017). Perhaps unsurprisingly, low school quality has been found to be associated with increased child labour (Drèze and Kingdon, 2001; Kambhampati, 2008; Leclercq, 2002; Ray, 2001, 2003).

3.2 Research focused on macroeconomic factors

There is a smaller body of research on the macroeconomic factors that influence child labour. The two main categories of macroeconomic factors which are studied are economic growth and globalization, where the latter category covers international trade, foreign direct investment (FDI), and social globalization.

3.2.1 Economic growth

The empirical results on the relationship between economic growth and child labour are mixed. Swaminathan (1998) studies the city of Bhavnagar in India and finds that economic growth increases the demand for child labour. Kambhampati and Ranjan (2006) find similarly that economic growth

in India can increase child labour, but that if growth is sustained child labour eventually decreases instead. Finally, Edmonds (2003) finds that economic growth reduces child labour in Vietnam. Therefore, the effect of economic growth on child labour is potentially non-linear and may lead to an increase in child labour, at least in the short-run.

3.2.2 Globalization

Turning to globalization, the majority of the research has focused on economic globalization, i.e. international trade and FDI. There is no clear theoretical prediction about the effect of economic globalization of child labour (Edmonds and Pavcnik, 2005). The empirical evidence does not indicate a strong role of economic globalization on child labour, with most results showing either small negative effects or no effects (Cigno et al, 2002; Neumayer and De Soysa, 2005; Edmonds and Pavcnik, 2005; Edmonds and Pavcnik, 2006; Davies and Voy, 2009). This could in some part be due to heterogeneous effects of trade on child labour. Figueiredo and Lima (2022) find that the impact of trade integration on child labour in Brazil depends on whether trade led to a relative increase in exports or in imports. In the case where a household was located in an area that experienced an increase in exports, child labour decreased, whereas the opposite was true when imports increased. Finally, there is far less research on the relationship between social globalization, measured primarily in terms of the international transfer of information and personal contacts across borders, and child labour, but the research that exists indicates a significant negative relationship (Congdon Fors, 2014).

3.3 Research focused on other parental and household factors

Factors that do not fit neatly into the categories microeconomic or macroeconomic are discussed in this subsection. These include preferences, norms, culture, and other related parental or household characteristics.

3.3.1 Altruism

One important characteristic in determining the incidence of child labour is whether parents act altruistically towards their children. If parents exhibit low levels of altruism towards their children, then we would expect higher incidences of child labour, all else equal.² In a theoretical model, Rogers and Swinnerton (2004) show that when both parents and children are altruistic, the incidence of child labour will depend on parental income and the expectation of intergenerational transfers. When parents expect transfers from their adult children, child labour will be lower. Likewise, if parental income is high enough that children expect to receive bequests, then the incidence of child labour is expected to be low. At intermediate levels of parental income, however, it is unclear how resources will be transferred across generations, leading to a relatively higher incidence of

²However, even children of altruistic parents may have to work if faced with compelling poverty or market imperfections.

child labour. Empirical evidence on parental altruism has been mixed (Parsons and Goldin, 1989; Bhalotra, 2004; Fan, 2011; Lima et al, 2015).

3.3.2 Norms and culture

Norms or parental preferences may also play a role in child labour. Abdullah et al (2022) perform a systematic review of empirical papers investigating social norms and child labour and find that several norms can be linked to child labour, for example norms of obedience and gender norms. López-Calva (2002) develops a theoretical model where parents may have a positive stigma towards child labour. For example, parents may feel that there are safe levels of child labour that teach valuable work skills and develop traits such as discipline and responsibility. It is assumed that in most cases parents would prefer the child to combine child labour with schooling, and that in such contexts, forms of child labour that are compatible with school attendance are more likely to be found. Patrinos and Shafiq (2010) investigate this theory empirically using data from Guatemala. They make the case that indigenous communities are more likely to have a positive stigma towards child labor. Their results indicate that indigenous children are more likely to combine work and school or to only work, and are less likely to only attend school, than other Guatemalan children.

Another channel through which culture might affect child labour is investigated by Tang and Zhao (2023). Specifically, they study clan culture in China and find that clan culture reduces child labour, but only for boys. They argue that this is due to clan culture serving as a type of social insurance with informal risk-sharing, and that it also fosters social norms that encourage human capital investment. The strict patrilineal nature of clan culture means that the positive effects are reserved for boys in this case.

3.3.3 Other parental and household characteristics

Parental education

Parents with higher education more often send their children to school and less often engage their children in child labour (Strauss and Thomas, 1995; Kurosaki et al, 2006; Emerson and Souza, 2007; Kambhampati and Rajan, 2008). This may be due to educated parents having a greater preference for education. It may also be due to children of highly educated parents earning higher returns to education, as a result of the intergenerational transmission of human capital. There is however no clear pattern as to whether it is the mother's or father's education that plays the biggest role in affecting child labour in general, but there is evidence that the father's education has a bigger impact on sons' versus daughters' incidence of child labour (Kurosaki et al, 2006; Emerson and Souza, 2007).

Female labour force participation

A topic that arises in Basu and Van (1998) is female adult labour force participation. If mothers increase their participation in the labour market, this could have competing effects on child labour,

particularly of girls. Higher income from employment should all else equal reduce child labour by reducing household poverty. However, there is some evidence that child labour of daughters may initially increase, as they may need to take over responsibilities from their mother (Ray, 2000; Hazarika and Sarangi, 2008; Kambhampati and Rajan, 2008). Therefore, the effect of increased female labour force participation on child labour, at least on child labour of daughters, may have different effects depending for example on how much extra income the mother earns.

Fertility

The number of children parents decide to have is another factor that can affect child labour, and many theoretical models assume that higher fertility will lead to higher rates of child labour, all else equal (Basu and Van, 1998; Basu, 2000; Rogers and Swinnerton, 2001; Hazan and Berdugo, 2002). Empirically, some exceptions to this assumption have been found. For example, in families with several children there is scope for specialization, where some children (often the older siblings) work so that the other children in the family can attend school (U.S. Department of Labor, 2000; Edmonds, 2006b; Manacorda, 2006). There is also evidence that knowledge can be shared between siblings, potentially leaving all children in the household better off (Basu et al, 1999).

Bargaining power

Bargaining power between parents can also influence child labour. Theoretical and empirical studies have shown that if parents differ in terms of their consumption preferences, then the incidence of child labour may depend on the relative bargaining power between the parents. Bargaining power in turn can be gained through different channels, such as education or financial resources. In general, child labour is minimized when bargaining power between parents is equal, or at least very similar (Basu and Ray, 2002; Basu, 2006; Gitter and Barham, 2008).

The broad conclusion of the above review is that primarily microeconomic aspects such as household poverty, market imperfections, and a lack of access to (quality) schooling are the main factors affecting child labour. Macroeconomic aspects generally have a less direct impact. However, in many countries it is unlikely that redistributive policies will be sufficient to address child labour without economic growth, making economic growth at least indirectly important for tackling child labour.

4 Policy and the role of research in target achievement

As indicated by the discussion and results in the section above, child labour is a complex subject with no easy solutions. Rather, a multidimensional approach will be necessary, requiring action from local, national and international actors.

4.1 Legal framework

One area that has been highlighted as important for tackling child labour is a legal framework, including laws and restrictions. Perhaps the most discussed policy option is an outright ban on or boycott of child labour. There is some evidence that a ban could be effective in theory (Basu and Van, 1998; Dessy, 2000; Soares, 2010). However, these potentially positive results often rely on certain assumptions holding, such as a sufficiently high wages for adult labour or a policy that can be enforced to a very high degree (Basu and Van, 1998; Basu and Zarghamee, 2009). Similarly, theoretical models of international trade policy and labour standards show that such policies are likely to be unsuccessful if enforcement is not effective in all sectors of the economy, and may even result in increased child labour (Maskus, 1997; Doepke and Zilibotti, 2009, 2010). Abman et al (2023) find that the effect of regional trade agreements (RTAs) on child labour depends in part on whether or not the agreements include explicit bans on child labour. They find that RTAs with bans on child labour tend to increase the incidence of child labour, while RTAs without a ban on child labour reduce child labour. Indeed, enforcement of policies aimed at banning child labour will in many cases be difficult, given the number of children working in the family and/or in poor rural settings.

A well-known example of a proposed trade policy against child labour comes from Bangladesh in the early 1990s. A bill raised in the United States senate, called the Child Labor Deterrence Act, intended to bar the import of any goods using child labour as an input to production. The Bangladeshi garment industry responded by dismissing an estimated 50,000 child labourers (Bellamy, 1997). The ILO and UNICEF subsequently sent delegations to assess the impact of these summary dismissals on the former child labourers. They found that most of the children they managed to contact reported negative effects from their retrenchment, due mainly to a loss of income that could not be compensated (UNICEF, ILO, 2004). They further found that around 6% of children reported that they had been pushed into hazardous work (ibid). Therefore, while a legal framework for addressing the problem of child labour is necessary, it will not be sufficient. Policies need to be in place to provide working children with viable alternative opportunities, and families will often need to be compensated for the loss of income from child labour.

4.2 Poverty reduction

Effective policies against child labour must target the root causes. In the case of poverty, policies will need to aim to raise household income.

4.2.1 Macroeconomic policies of poverty reduction

One macroeconomic means of reducing household poverty could be via income redistribution. This policy may however not be viable in many of the countries most affected by child labour, as it relies on a sufficiently high average income level in the economy as well as the means to carry out effective taxation and redistribution in practice. Economic growth is another macroeconomic

means by which poor families can potentially increase their household income, and is one of the necessary long-run policies for ending child labour. The challenge here is that economic growth is a relatively slow, and often uneven, process that many times cannot address child labour in the short- or medium-run. In fact, economic growth may lead to a temporary increase in child labour in the short-run, as discussed in section 3 above. Therefore, microeconomic policies aimed at reducing poverty will be necessary to complement longer-run macroeconomic policies.

4.2.2 Employment programs

A policy that could potentially reduce child labour is employment programs for adults, as higher adult income should theoretically allow some families to remove their children from the labour force. However, as discussed in subsection 3.3.3 above, the effect on child labor may also depend on whether for examples mothers increase their labour force participation. The empirical evidence is indeed mixed. Studying an employment program in Mozambique, Ajuda Mútua, Fumagalli and Martin (2023) find that increased parental employment leads to a decrease in child labour. Li and Sekhri (2020) investigate the effect of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGA) in India and find evidence that the program increases child labour. The above results indicate that the effectiveness of employment programs for adults on reducing child labour may be context specific, and depend on the particular details of the program.

4.2.3 Cash transfer programs

One microeconomic policy instrument that has been studied in detail is cash transfers. Many of the early cash transfer programs were conditional, meaning that in order for a household to be eligible for the transfer they were required to fulfil a program requirement, such as having the child attend school. The main idea behind conditional cash transfers (CCTs) is that the conditions attached make targeting more precise. In recent years, unconditional cash transfers (UCTs) have also been implemented. In general, there is a large body of evidence that CCTs can significantly reduce child labour (see for example Maluccio and Flores, 2005; Rawlings and Rubio, 2005; Handa and Davis, 2006; Fiszbein et al., 2009; Galiani and McEwan, 2013; de Hoop and Rosati, 2014).³ There is also evidence that cash versus in-kind transfers are most effective at reducing child labour (Tagliati, 2022).

Despite CCTs general successfulness, there are some potential pitfalls. Barrera-Osorio et al. (2008) find for example that CCTs that only target one child in the household may simply result in a redistribution of child labour between siblings, and Camilo and Zuluaga (2022) find that siblings to children receiving a cash transfer have lower school enrollment and greater absenteeism. Handa and Davis (2006) argue that the success of CCTs may result in policymakers losing focus on broader,

³Not all research reaches this conclusion, however. Cepaluni et al (2022) found no evidence that a large scale CCT in Brazil had any impact.

long term policy interventions. There is also an issue with the size of the transfer, where CCTs that are not sufficiently large to cover the full cost of attending school run the risk of not impacting, or even at times increasing, child labour (Edmonds and Shrestha, 2014; Datt and Uhe, 2019; de Hoop et al, 2019). The evidence on UCTs is somewhat more mixed compared to CCTs. In particular, child labour may increase if the UCT is used to purchase productive assets (Dammert et al, 2018; de Hoop et al, 2020).

4.2.4 Microcredit and micro-insurance

Another policy that can help reduce child labour is microcredit. Dammert et al (2018) review the empirical evidence and find mixed results. They argue that this may partially be due to the varying contexts in which child labour was studied, as well as different policy designs and measures of child labour. As with UCTs, they also find that the results can depend on whether households increase their ownership of productive assets or not. Further, there is a risk that children are required to work more with household chores if their parents, particularly their mothers, increase their labour supply as a result of receiving microcredit. A related concept, aimed at helping households off-set shocks, is micro-insurance. While micro-insurance may have the potential to be a promising policy tool, there is currently little evidence available to evaluate its effectiveness. One study (Landmann and Frolich, 2015) did find that micro-insurance reduced child labour, but more research is needed in order to be able to draw any general conclusions.

4.3 Access to education

As discussed above, policies aimed at improving access to education are likely to contribute to a decline in child labour. Kozhaya and Flores (2022) find that a program in Mexico that extended the school day from part-time to full-time decreased the number of hours children engaged in child labour, and decreased the probability that children participated in child labour. Not only quantity but quality of education is crucial, as is the goal of making at least primary education free (see for example Torres, 2003). Further, there is evidence that educated parents are more likely to send their children to school, all else equal, indicating that education can have a dynastic effect (Emerson and Souza, 2003). Improving school quality and quantity should also facilitate economic growth, as human capital is often argued to be an important contributor to economic growth (Romer, 1990; Aghion and Howitt, 1992; Mankiw et al., 1992). However, much like the goal of economic growth, improving school quality and quantity is in many cases a longer-run policy that will take time to fully achieve.

4.4 The role of gender in child labour

There is a growing body of research that indicates that policies for addressing child labour will have to take gender into account, at least in some contexts. This can be for several reasons. For example, it could be the case that education is considered less attractive for girls if the number of skilled

jobs available to women is limited, thus lowering the returns to education for girls. There could also be cases of outright discrimination against girls in the household due to son preferences (see for example Barcellos et al., 2010). And as discussed above, girls are more likely than boys to be doing household chores, which is an activity that risks being overlooked using the current method of measuring child labour (Ray, 2000; Hazarika and Sarangi, 2008; Kambhampati and Rajan, 2008). The gender composition of the household’s children can also have an impact on child labour. For example, older sisters are often found to reduce the amount of child labour performed by younger siblings (Edmonds, 2006b) and increase younger siblings’ schooling (Morduch, 2000; Kambhampati and Rajan, 2008).

Parents’ gender has also been shown to play a role in child labour, often via intra-household bargaining, as discussed in subsection 3.3.3 above. Gitter and Barham (2008), for example, find that households receiving a CCT spend more on children in households where the mother has more bargaining power. This positive effect disappears when mothers have too much power, i.e. when there is a large imbalance within the household. Similarly, the effects of parental education on child labour has been shown to depend on whether it is the mother’s or father’s education that is measured, and whether the decision is in relation to a son or a daughter (Kurosaki et al., 2006; Emerson and Souza, 2007). In both these cases, female agency is an important aspect. Similarly, high fertility has been associated with relatively low female agency in many cases (Upadhyay et al, 2014). Taken together, the research indicates that policies aimed at raising the status of girls and women, and thereby increasing their agency, are likely to reduce child labour, at least in the medium- to long-run.

The ILO has several publications dedicated to gathering information relevant to the goal of eliminating child labour (see for example ILO (2017; 2018) and ILO/UNICEF, 2020). See also Dammert et al (2018) for an overview of policy-related economic research.

5 Critical evaluation of the indicator

The choice of indicator for SDG 8.7 is “Proportion and number of children aged 5-17 years engaged in child labour, by sex and age”. This indicator follows directly from the statistics collected by the ILO/UNICEF, and therefore follows the definition of child labour outlined in section 2 above. This is a reasonable indicator for measuring progress towards the achievement of the goal insofar as it is in practice the only such measure available that can be compared across countries and time. It is therefore also broadly used as an indicator for child labour.

5.1 Standardization

The comparability of the indicator across countries is at once a strength and a weakness. The obvious strength is that the measure and definition of child labour is the same regardless of the

context in which the term is applied. This however also means that the measure has to undergo a degree of standardization in terms of what is included in the definition of child labour. In order to make the indicator as comparable as possible, the definition of child labour has largely been restricted to economically productive activities. While these activities no doubt encompass a large portion of what most would consider to be child labour, it does not include domestic work in the child's own household. Consider a family with a brother and sister both under the age of 12, where the boy is working on the family farm, helping with planting or harvesting for example, while his sister performs domestic chores, such as fetching water or collecting firewood. As the statistics are currently collected, the boy will be included in the child labour statistics, while his sister will not. This in turn is likely to have a significant impact on the gender aspect of the indicator, as indeed the majority of children performing such domestic housework are girls. Further, children performing domestic work risk being overlooked by both academic researchers and by policymakers.

5.2 Measurement

Measuring child labour is difficult for several reasons. First, as mentioned above, the majority of child labour is performed within the family and/or in informal settings, meaning that there will be little to no official statistics. The way the ILO has addressed this is to estimate child labour based on information from different types of surveys collected in different countries, primarily household surveys. For the most recent estimates (for 2020), the ILO/UNICEF have had access to survey data from 106 countries, twice as many as compared to data from 53 countries in 2012 (ILO, 2017; ILO/UNICEF, 2021). There is then a rather complex process involved to aggregate these figures to regional and global levels. Therefore, the available statistics on child labour include are estimates with potentially significant measurement error (ILO, 2008). The fact that the child labour statistics build on national surveys also explains why global and regional estimates are updated every four years rather than annually.

A related point is that it is not clear exactly how individual surveys attempt to measure child labour, given that the general indicator is constructed by aggregating data from many different types of surveys. For example, some surveys may ask what the child's main occupation/activity is, while others may ask how many hours a child worked in the previous week. The latter measure may be more susceptible to seasonal variation, especially in agricultural settings. There is evidence that disparate methods of measuring child labour may result in significant differences in empirical results (Dillon et al, 2012). A further drawback of most of the data on child labour is that, given that most of the surveys are at the household level, there is a risk that some of the most vulnerable children will be missed. For example, street children, orphans, and children in the worst forms of child labour.

Another difficulty in measuring child labour is that the activity is in many cases illegal, especially in the case of hazardous work. There may therefore be an incentive for survey respondents, often

the children’s parents, to misreport or underreport child labour. Even in cases where child labour is not explicitly illegal, households may have been exposed to government or NGO programs aimed at reducing child labour, and therefore understand that these entities view child labour as something negative. As a result, child labour may be underreported due to social-desirability bias.⁴ In a recent paper, Lichand and Wolf (2023) investigate reporting of child labour among cocoa farmers in Côte d’Ivoire. They use satellite imagery to identify remote areas where households are less likely to have been exposed to government and NGO programs, and therefore less likely to exhibit social-desirability bias. Further, enumerators visited the areas when the cocoa was being harvested, thus making it easier to observe child labour even if parents do not report it. They find that parents underreport child labour by about 60 percent, while the children themselves report their own labour accurately. They further show that exposure to a campaign against child labour not only results in an underreporting of child labour, but also risks leading researchers to draw the wrong conclusions about the effectiveness of the program.

A final issue with the measurement of the indicator is that there is a marked lack of data from high income countries. Indeed, in the ILO/UNICEF (2021) report it is mentioned in the footnotes of the data tables that in absence of data, child labour is assumed to be zero. It is further indicated that the data coverage for child labour is low for Europe and North America. This is due to a number of issues. One is that household surveys performed in these countries often do not ask about child labour. For example, the European Union Labour Force Surveys only individuals aged 15 and older, meaning that at most it is able to detect children in the most hazardous forms of child labour (ILO/UNICEF, 2022). It is also likely that the issue of underreporting and social desirability bias discussed above will be a bigger problem in high income countries. Therefore, it can be difficult to gauge the extent of child labour in these countries. This is not to say that nothing is known about child labour in rich countries. In the United States, for example, the Department of Labor has noted a significant increase in child labour since 2018, and an interagency child labour task force was established in early 2023 (U.S. Department of Labor, 2023). However, as previously noted, the lack of systematic information about child labour in the Global North means that almost all of the research into both the causes of and potential solutions to child labour are focused on the Global South.

5.3 Conceptualization

According to the official definition, an identifying feature of child labour is that it is harmful to the child. How can we determine when child labour is harmful? Several of the theoretical models discussed above model child labor as an outcome of altruistic households seeking to maximize their overall well-being. In such scenarios, prohibiting child labor could result in reduced welfare for families that rely on the income generated by working children. Further, it is not self-evident

⁴That is, respondents may give the response they believe is most socially acceptable in a given context.

that altruistic households would engage their children in obviously harmful forms of child labour. Therefore, there may be scope for forms of child labour that are not harmful to the child, and there will always be a degree of arbitrariness to the measure that is difficult to avoid. Take for example the 14 hour cut-off. Children could potentially work more hours at easy/light jobs without significant negative impacts. Conversely, it is possible there are children working less than 14 hours per week who are significantly negatively impacted. It is therefore difficult to measure the extent to which child labour is harmful by working hours alone.

One argument for treating child labour as harmful is that it can interfere with the child's education. The empirical evidence is somewhat mixed. Many studies find that child labour has significant negative effects on school attendance and educational outcomes (Beegle et al, 2009; de Hoop and Rosati, 2014; Khanam, 2008; Ravallion and Wodon, 2000) but in some cases it is possible to combine child labour and schooling without any significant negative effects (Lancaster and Ray, 2004; Dumas, 2012). Therefore, the distinction between child work and child labour will always be a compromise.

5.4 Potential for improvement

So how can the indicator be improved? It may be difficult to change the strict measure of child labour given the restrictions on the data availability and the advantages of comparability. Still, this leaves important questions such as gender skew and underreporting. One possibility is to complement the child labour data with a measure of the number of children out of school, at least for the 5 – 14 age range. This would potentially capture children who are working to the point that they can not attend school, whether in economic activity or in domestic household work. In addition, focusing some attention on children out of school can potentially shine a light on children who are otherwise often categorized as idle, i.e. neither working nor attending school. There is some research that indicates that these “idle” children have many of the same characteristics as working children, and may in fact be working but not captured by current measures. Jayaraj and Subramanian (2005) indeed argue that in many settings, children who are not attending school should be considered to be working.

While including a measure of children out of school may help to understand the true scope of child labour, it does not help to understand what types of work children are engaged in. Further, it does not help to identify the children in the worst forms of child labour. Therefore, there are no easy solutions to addressing all of the shortcomings of the indicator.

6 Major challenges

Based on the existing research, eliminating poverty and securing access to quality education (i.e. SDG 1 and SDG 4) are absolutely critical in eradicating child labour. Eliminating, or at least

reducing, armed conflict and natural disasters (SDG 16 and SDG 13) will also play a key role. As already mentioned, these are complicated issues, and cannot be solved over night. There are significant global challenges to obtaining these goals, including climate change and the spread of armed conflict, as well as the impacts of the covid-19 pandemic.

Climate change is expected to increase the risk of child labour in several ways, as detailed for example in Myers and Theytaz-Bergman (2017). In many countries, climate change is having a negative impact on the productivity of land, which has a direct negative effect on the income of many rural households. Further, even if the average productivity of the land is not significantly reduced, climate change is associated with greater variability in weather patterns, such as rainfall. This in turn means that households relying on agriculture will be more often exposed to income shocks, which again risks increasing child labour. In the extreme, climate change can lead to natural disasters, which has also been linked to increased child labour. Another effect of climate change is to push some families to migrate to cities. While this in and of itself does not have to be negative, many studies have found that these families often end up in poor living conditions. Migration to cities has also been found to increase the amount of hazardous work done by children, and often leads to children leaving school (Myers and Theytaz-Bergman, 2017). More research is needed into the relationship between climate change and child labour, as this relationship is likely to be higher context-specific. Further, research should also focus on policies that help households adapt to climate change in general.

Another challenge, one that is somewhat more limited geographically, is the spread of armed conflict. Statistics show that child labour is more prevalent in areas affected by conflict. There is some research indicating that this relationship is causal, and that conflict also has an impact on schooling (Rodríguez and Sánchez, 2012; Diwakar, 2015; ILO, 2017; Naufal et al, 2019). Conflict is also disruptive to the livelihoods of households in affected areas, and can lead to migration and internal displacement. According to Save the Children (2018), refugee children are at a very high risk of participating in child labour. While interstate conflict has generally been declining, internationalized and non-state conflict has increased, making armed conflict a substantial problem in many countries (Strand et al, 2020). Therefore, efforts to reduce conflict will also be needed in order to reduce child labour.

Finally, the covid-19 pandemic has led to an increase in child labour primarily through two channels: reducing household income and limiting access to school. Comprehensive data on the scope and effects of the pandemic on child labour do not yet exist. Human Rights Watch (HRW) has compiled a report based on studies in Ghana, Nepal and Uganda (HRW, 2021). These results show that many children were pushed into child labour due to the disastrous effect of the pandemic on household income. In addition, school closures meant that many children no longer had access to the free meals provided there, further exacerbating the problem. The studies show that children were often pushed into hazardous labour, and many times had to work long hours. Many of the children

interviewed stated that they wished to return to school when and if schools reopened. In places where schools had already reopened, it was found that children often needed to combine attendance with continued child labour, which had a negative effect on their schooling. The report highlights the urgent need for social protection programs, as well as the need ensure access to schooling and legal measures against child labour. While most of these policies will need to be formulated and enacted at a national level, there is a substantial role for the international community in providing resources and assistance.

7 Conclusion

Moving forward, the discussion above indicates that a two-pronged approach is necessary to tackle child labour. On the one hand, important and broad macro-level factors have to be addressed, such as economic growth, legal frameworks, climate change, and conflict resolution. At the same time, concrete means of tackling child labour at the microeconomic level need to be developed and employed to address the issue in the here and now. There is a need to focus on the evaluation of programs/policies to eliminate child labour in order to determine which are most effective, both in terms of outcomes but also in terms of cost. Successful policies are likely to be highly context dependent. As noted in the discussions above, it is also important to take unintended consequences into account when formulating policies, so that well-intentioned deeds do not in fact lead to an increase in child labour.

Almost all research into the causes, consequences and potential solutions to child labour are focused on the Global South, meaning that we know relatively little about child labour in the Global North. This is a significant gap in our knowledge and an important avenue for future research. What is further evident from the preceding discussion is that effective policies against child labour will require action from local, national and international actors. Given the scope of the problem and where most child labourers are located, tackling child labour will require assistance and resources from the international community.

REFERENCES

- Abdullah, A., Huynh, I., Emery, C. R., and Jordan, L. P. (2022). Social norms and family child labor: a systematic literature review. *International journal of environmental research and public health*, 19(7), 4082.
- Abman, R. M., Lundberg, C. C., McLaren, J., and Ruta, M. (2023). *Child Labor Standards in Regional Trade Agreements: Theory and Evidence* (No. w30908). National Bureau of Economic Research.
- Aghion, P. and Howitt, P. (1992) A model of growth through creative destruction. *Econometrica* 60(2): 323–351.
- Baland, J. and Robinson, J. (2000) Is child labour inefficient? *Journal of Political Economy* 108(4): 663–679.
- Barcellos, S., Carvalho, L. and Lleras-Muney, A. (2010) Child gender and parental investments in India: are boys and girls treated differently? RAND Working Paper Series WR-756.
- Barrera-Osorio, F., Bertrand, M., Linden, L. and Perez-Calle, F. (2008) Conditional cash transfers in education: design features, peer and sibling effects—evidence from a randomized experiment in Colombia. Policy Research Working Paper 4580, World Bank.
- Basu, K. (1999) Child labor: cause, consequence and cure, with remarks on international labor standards. *Journal of Economic Literature* 37(3): 1083–1119.
- Basu, K. (2000) The intriguing relation between adult minimum wage and child labour. *The Economic Journal* 110(462): C50–C61.
- Basu, K. (2006) Gender and say: a model of household behaviour with endogenously determined balance of power. *The Economic Journal* 116(511): 558–580.
- Basu, K., Narayan, A., and Ravallion, M. (1999). Is knowledge shared within households? (Vol. 2261). World Bank, Office of the Senior Vice President and Chief Economist, Development Economics, and Development Research Group, Poverty and Human Resources.
- Basu, K. and Ray, R. (2002) The collective model of the household and an unexpected implication for child labor: hypothesis and an empirical test. Policy Research Working Paper 2813, World Bank, Washington DC.
- Basu, K. and Van, P. (1998) The economics of child labor. *American Economic Review* 88(3): 412–427.
- Basu, K. and Zarghamee, H. (2009) Is product boycott a good idea for controlling child labor? A theoretical investigation. *Journal of Development Economics* 88(2): 217–220.
- Basu, K., Das, S. and Dutta, B. (2010) Child labor and household wealth: theory and empirical evidence of an inverted-U. *Journal of Development Economics* 91: 8–14.

- Beegle, K., Dehejia, R. and Gatti, R. (2003) Child labor, crop shocks, and credit constraints. NBER Working Paper 10088, Cambridge.
- Beegle, K., Dehejia, R. and Gatti, R. (2006) Child labor and agricultural shocks. *Journal of Development Economics* 81(1): 80–96.
- Beegle, K., Dehejia, R. and Gatti, R. (2009) Why should we care about child labor? The education, labor market, and health consequences of child labor. *Journal of Human Resources* 44(4): 871–889.
- Bellamy, C. (1997) *The State of the World’s Children 1997*. Oxford: Oxford University Press for UNICEF.
- Bhalotra, S (2004) ”Parent Altruism, Cash Transfers and Child Poverty”, Discussion Paper 04/562, University of Bristol.
- Bhalotra, S. (2007) Is child work necessary? *Oxford Bulletin of Economics and Statistics* 69(1): 29–55.
- Bhalotra, S. and Heady, C. (2003) Child farm labour: the wealth paradox. *World Bank Economic Review* 17(2): 197–227.
- Bold, Tessa, Deon Filmer, Gayle Martin, Ezequiel Molina, Brian Stacy, Christophe Rockmore, Jakob Svensson, and Waly Wane. (2017). ”Enrollment without Learning: Teacher Effort, Knowledge, and Skill in Primary Schools in Africa.” *Journal of Economic Perspectives*, 31 (4): 185-204.
- Camilo, K., and Zuluaga, B. (2022). The effects of conditional cash transfers on schooling and child labor of nonbeneficiary siblings. *International Journal of Educational Development*, 89, 102539.
- Cepaluni, G., Chewning, T. K., Driscoll, A., and Faganello, M. A. (2022). Conditional cash transfers and child labor. *World Development*, 152, 105768.
- Chaudhury, N., Hammer, J., Kremer, M., Muralidharan, K. and Rogers, F.H. (2006) Missing in action: teacher and health worker absence in developing countries. *Journal of Economic Perspectives* 20(1): 91–116.
- Chudgar, A., Grover, V., Hatakeyama, S., and Bizhanova, A. (2022). Child labor as a barrier to foundational skills: Evidence from Bangladesh and Pakistan. *Prospects*, 52(1-2), 137-156.
- Cigno, A., Rosati, F. and Guarcello, L. (2002) Does globalization increase child labor? *World Development* 30(9): 1579–1589.
- Cogneau, D., and Jedwab, R. (2012). Commodity price shocks and child outcomes: the 1990 cocoa crisis in Cote d’Ivoire. *Economic Development and Cultural Change*, 60(3), 507-534.
- Congdon Fors, H. (2012). Child labour: A review of recent theory and evidence with policy implications. *Journal of Economic Surveys*, 26(4), 570-593.
- Congdon Fors, H. (2014). *Social Globalization and Child Labor: A Cross-country Analysis*. The

Developing Economies, 52(2), 125-153.

Congdon Fors, H., Hounbedji, K., and Lindskog, A. (2019). Land certification and schooling in rural Ethiopia. *World Development*, 115, 190-208.

Dammert, A. (2005) Does child labor decline with household income? A non-parametric approach. *Mimeo*, Syracuse University.

Dammert, A. (2008) Child labor and schooling response to changes in coca production in rural Peru. *Journal of Development Economics* 86(1): 164–180.

Dammert, A. C., De Hoop, J., Mvukiyehe, E., and Rosati, F. C. (2018). Effects of public policy on child labor: Current knowledge, gaps, and implications for program design. *World development*, 110, 104-123.

Datt, G., and Uhe, L. (2019). A Little Help May Be No Help at All: Size of Scholarships and Child Labour in Nepal. *Journal of Development Studies*, 55(6), 1158–1181.

Davies, R. and Voy, A. (2009) The effect of FDI on child labor. *Journal of Development Economics* 88(1): 59–66.

Dehejia, R. and Gatti, R. (2002) Child labor: the role of income variability and access to credit across countries. *NBER Working Paper 9018*, Cambridge.

de Hoop, J. and Rosati, F. (2014) Cash transfers and child labor. *The World Bank Research Observer*, 29 (2), pp. 1-33.

de Hoop, J., Friedman, J., Kandpal, E., and Rosati, F. C. (2019). Child schooling and child work in the presence of a partial education subsidy. *Journal of Human Resources*, 54(2), 503–531.

de Hoop, J., Groppo, V., and Handa, S. (2020). Cash transfers, microentrepreneurial activity, and child work: Evidence from Malawi and Zambia. *The World Bank Economic Review*, 34(3), 670-697.

Dessy, S. (2000) A defence of compulsive measures against child labor. *Journal of Development Economics* 62: 261–275.

Diallo, Y., Hagemann, F., Etienne, A., Gurbuzer, Y. and Mehran, F. (2010) Global child labour developments: measuring trends from 2004 to 2008. Geneva.

Diallo, Y., Etienne, A., and Mehran, F. (2013) Global child labour trends 2008 to 2012. Geneva.

Dillon, A., Bardasi, E., Beegle, K., and Serneels, P. (2012). Explaining variation in child labor statistics. *Journal of Development Economics*, 98(1), 136-147.

Diwakar, V. (2015) The Effect of Armed Conflict on Education: Evidence from Iraq, *The Journal of Development Studies*, 51:12, 1702-1718.

- Doepke, M. and Zilibotti, F. (2009) International labor standards and the political economy of child labor regulation. *Journal of the European Economic Association* 7(2-3): 508–518.
- Doepke, M. and Zilibotti, F. (2010) Do international labor standards contribute to the persistence of the child-labor problem? *Journal of Economic Growth* 15(1): 1–31.
- Drèze, J. and Kingdon, G. (2001) School participation in rural India. *Review of Development Economics* 5(1): 1–24.
- Dumas, C. (2007) Why do parents make their children work? A test of the poverty hypothesis in rural areas of Burkina Faso. *Oxford Economic Papers* 59: 301–329.
- Dumas, C. (2012). Does work impede child learning? The case of Senegal. *Economic Development and Cultural Change*, 60(4), 773–793.
- Dumas, C. (2013). Market imperfections and child labor. *World development*, 42, 127-142.
- Dumas, C. (2020). Productivity shocks and child labor: The role of credit and agricultural labor markets. *Economic Development and Cultural Change*, 68(3), 763-812.
- Duryea, S., Lam, D. and Levison, D. (2007) Effects of economic shocks on children’s employment and schooling in Brazil. *Journal of Development Economics* 84(1): 188–214.
- Edmonds, E. (2006a) Child labor and schooling responses to anticipated income in South Africa. *Journal of Development Economics* 81(2): 386–414.
- Edmonds, E. (2006b) Understanding sibling differences in child labor. *Journal of Population Economics* 19: 795–821.
- Edmonds, E. and Pavcnik, N. (2005) The effects of trade liberalization on child labor. *Journal of International Economics* 65(2): 401–441.
- Edmonds, E. and Pavcnik, N. (2006) International trade and child labor: cross-country evidence. *Journal of International Economics* 68(2): 115–140.
- Edmonds, Eric V., and Schady, N. (2012) ”Poverty Alleviation and Child Labor.” *American Economic Journal: Economic Policy*, 4 (4): 100-124.
- Edmonds, E. V., and Shrestha, M. (2014). You get what you pay for: Schooling incentives and child labor. *Journal of Development Economics*, 111, 196-211.
- Edmonds, E., and Theoharides, C. (2020). The short term impact of a productive asset transfer in families with child labor: Experimental evidence from the Philippines. *Journal of Development Economics*, 146, 102486.
- Emerson, P. and Knabb, S. (2006) Opportunity, inequality and the intergenerational transmission of child labor. *Economica* 73: 413–434.

Emerson, P. and Souza, A. (2003) Is there a child labor trap? Inter-generational persistence of child labor in Brazil. *Economic Development and Cultural Change* 51: 375–398.

Emerson, P. and Souza, A. (2007) Child labor, school attendance, and intrahousehold gender bias in Brazil. *The World Bank Economic Review* 21(2): 301–316.

Fan, C. S. (2011). The luxury axiom, the wealth paradox, and child labor. *Journal of Economic Development*, 36(3), 25.

Figueiredo, E., and Lima, L. R. (2022). Unintended consequences of trade integration on child labor. *Journal of Economic Behavior and Organization*, 194, 523-541.

Fiszbein, A., Schady, N., Ferreira, M., Grosh, M., Kelleher, N., Olinto, P. and Skoufias, E. (2009) *Conditional Cash Transfers: Reducing Present and Future Poverty*. Washington, DC: World Bank, The International Bank for Reconstruction and Development.

Fumagalli, L., and Martin, T. (2023). Child labor among farm households in Mozambique and the role of reciprocal adult labor. *World Development*, 161, 106095.

Galiani, S. and McEwan, P.J. (2013) The heterogeneous impact of conditional cash transfers *Journal of Public Economics*, 103, pp. 85-96. Ganglmair, B. (2005) A note on the effects of income and property on child labor in rural Uganda. Mimeo, Bonn Graduate School of Economics, Bonn, Germany.

Gitter, S. and Barham, B.L. (2008) Women’s power, conditional cash transfers, and schooling in Nicaragua. *The World Bank Economic Review* 22(2): 271–290.

Guarcello L., Mealli, F. and Rosati, F. (2010) Household vulnerability and child labor: the effect of shocks, credit rationing, and insurance. *Journal of Population Economics* 23: 169–198.

Handa S. and Davis, B. (2006) The experience of conditional cash transfers in Latin America and the Caribbean. *Development Policy Review* 24(5): 513–536.

Hazan, M and B Berdugo (2002) ”Child Labour, Fertility and Economic Growth”, *The Economic Journal* 112: 810-828.

Hazarika, G. and Sarangi, S. (2008) Household access to microcredit and child work in rural Malawi. *World Development* 36(5): 843–859.

Hossain, M. A. (2023). Unintended Consequences of a Well-Intentioned Policy: Impact of Credit on Child Labor in Bangladesh. *Journal of Human Resources*, 0920-11179R2.

Human Rights Watch (HRW) (2021) “I Must Work to Eat” Covid-19, Poverty, and Child labor in Ghana, Nepal, and Uganda, Report, ISBN: 9781623139070. <https://www.hrw.org/report/2021/05/26/i-must-work-eat/covid-19-poverty-and-child-labor-ghana-nepal-and-uganda>. Accessed May 27, 2021.

International Labour Organization (ILO) (2000), Worst Forms of Child Labour Convention (No. 182), http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C182

International Labour Organization (ILO) (2002) "Every Child Counts: New Global Estimates on Child Labour" Geneva: International Labour Organization.

International Labour Organization (ILO) (2008) "18th International Conference of Labour Statisticians". Geneva.

International Labor Organization (ILO) (2017). Global estimates of child labour: Results and trends, 2012–2016. Geneva.

International Labour Organisation (ILO) (2018). Ending Child Labour by 2025: A Review of Policies and Programmes. Geneva.

International Labour Organisation (ILO) (2021). What is child labour
http://www.ilo.org/ipec/facts/lang_en/index.htm

International Labour Organization and United Nations Children's Fund (ILO/UNICEF) (2020). Covid-19 And Child Labour: A Time Of Crisis, A Time To Act. Geneva.

International Labour Office and United Nations Children's Fund (ILO/UNICEF) (2021). Child Labour: Global Estimates 2020, Trends and the Road Forward. Geneva.

International Labour Office and United Nations Children's Fund (2022). Methodology of the 2020 ILO-UNICEF Global Estimates of Child Labour, ILO and UNICEF. New York.

Kambhampati, U.S. (2008) Does household expenditure on education in India depend upon the returns to education? The University of Reading Business School Discussion Papers 060.

Kambhampati, U.S. and Rajan, R. (2005) Does child work decrease with parental income? The luxury axiom revisited in India. *European Journal of Development Research* 17(4): 649–680.

Kambhampati, U.S. and Rajan, R. (2006) Economic growth: a panacea for child labour? *World Development* 34(3): 426–445.

Kambhampati, U.S. and Rajan, R. (2008) The 'nowhere' children: girls in india's rural economy. *Journal of Development Studies* 44(9): 1309–1341.

Khanam, R. (2008). Child labour and school attendance: Evidence from Bangladesh. *International Journal of Social Economics*, 35(2), 77–98.

Kozhaya, M., and Flores, F. M. (2022). School attendance and child labor: Evidence from Mexico's Full-Time School program. *Economics of Education Review*, 90, 102294.

Kurosaki, T., Ito, S., Fuwa, N., Kubo, K. and Sawada, Y. (2006) Child labor and school enrollment in rural india: whose education matters? *Developing Economies* 44(4): 440–464.

Lancaster, G., and Ray, R. (2004). Does child labour affect school attendance and school performance? Multi country evidence on SIMPOC data. *Econometric Society 2004 Australasian Meetings* 68, Econometric Society.

- Leclercq, F. (2002) Child work, schooling and household resources in rural north India. In N. Ramachandran and L. Massün (eds), *Coming to Grips with Rural Child Work: A Food Security Approach*. Delhi, India: Institute for Human Development and United Nations World Food Programme.
- Li, T., and Sekhri, S. (2020). The spillovers of employment guarantee programs on child labor and education. *The World Bank Economic Review*, 34(1), 164-178.
- Lichand, G., and Wolf, S. (2023). Measuring Child Labor: the Who's, the Where's, the When's, and the Why's. Available at SSRN: <http://dx.doi.org/10.2139/ssrn.4125068>.
- Lima, L. R., Mesquita, S., and Wanamaker, M. (2015). Child labor and the wealth paradox: The role of altruistic parents. *Economics Letters*, 130, 80-82.
- López-Calva, L.F. (2002). A social stigma model of child labor, *Estudios Economicos* 17: 193-217.
- Maldonado, J. and Gonzalez-Vega, C. (2008) Impact of microfinance on schooling: evidence from poor rural households in Bolivia. *World Development* 36(11): 2440–2455.
- Maluccio, J. and Flores, R. (2005) Impact evaluation of a conditional cash transfer programme: the Nicaraguan Red de Protección Social Research Report 141, International Food Policy Research Institute, Washington, DC.
- Manacorda, M. (2006) "Child labor and the labor supply of other household members: Evidence from 1920 America" *American Economic Review* 96: 1788-1800.
- Mankiw, N., Romer, D. and Weil, D. (1992) A contribution to the empirics of economic growth. *Quarterly Journal of Economics* 107(2): 407–437.
- Maskus, K. (1997) Should core labor standards be imposed through international trade policy? World Bank Development Research Group Policy Research Working Paper 1817, World Bank.
- Masterson, M. A. (2020). When play becomes work: Child labor laws in the era of" kidfluencers". *U. Pa. L. Rev.*, 169, 577.
- Myers, L. and Theytaz-Bergman, L. (2017) *The Neglected Link Effects of Climate Change and Environmental Degradation on Child Labour (Terre des Hommes)*.
<https://reliefweb.int/sites/reliefweb.int/files/resources/CL-Report-2017-engl.pdf>
- Naufal, G., Malcolm, M. and Diwakar, V. (2019) Armed conflict and child labor: evidence from Iraq, *Middle East Development Journal*, 11:2, 236-250.
- Neumayer, E. and De Soysa, I. (2005) Trade openness, foreign direct investment and child labor. *World Development* 33(1): 43–63.
- Oryoie, A. R., Alwang, J., and Tideman, N. (2017). Child labor and household land holding: Theory and empirical evidence from Zimbabwe. *World Development*, 100, 45-58.

- Parsons D and C Goldin (1989) "Parental Altruism and Self-Interest: Child Labor among Late Nineteenth-Century American Families", *Economic Inquiry* 27(4): 637 - 659.
- Patrinos, H. and N. Shafiq (2010) "An Empirical Illustration of Positive Stigma towards Child Labor", *Economics Bulletin* 30(1): 799-807.
- Psacharopoulos, G. (1997) Child labor versus educational attainment: Some evidence from Latin America. *Journal of Population Economics* 10(4): 377–386.
- Ranjan, P. (1999) An economic analysis of child labor. *Economics Letters* 64: 99–105.
- Ravallion, M., and Wodon, Q. (2000). Does child labour displace schooling? Evidence on behavioural responses to an enrollment subsidy. *Economic Journal*, 110(462), C158–C175.
- Rawlings L. and Rubio, G. (2005) Evaluating the impact of conditional cash transfer programs: lessons from Latin America. *World Bank Research Observer* 20(1): 29–55.
- Ray, R. (2000) Child labor, child schooling, and their interaction with adult labor: empirical evidence for Peru and Pakistan. *The World Bank Economic Review* 14(2): 347–371.
- Ray, R. (2001) Child labour and child schooling in south Asia: a cross country study of their determinants. ASARC Working Papers, Australian National University, Australia, South Asia Research Centre.
- Ray, R. (2003) The determinants of child labour and child schooling in Ghana. *Journal of African Economics* 11(4): 561–590.
- Rodríguez, C. and Sánchez, F. (2012) Armed Conflict Exposure, Human Capital Investments, And Child Labor: Evidence From Colombia, *Defence and Peace Economics*, 23:2, 161-184.
- Rogers, C and K Swinnerton (2001) "Inequality, Productivity and Child Labor: Theory and Evidence", mimeo, Georgetown University.
- Rogers C and K Swinnerton (2004) "Does child labor decrease when parental incomes rise?" *Journal of Political Economy* 112: 939 - 946.
- Romer, P. (1990) Endogenous technological change. *Journal of Political Economy* 98(5): 71–102.
- Save the Children International (2018) Child Labour: The new reality for refugee children, Brief, https://resourcecentre.savethechildren.net/node/12185/pdf/cl_day_leaflet-wmb_1.pdf
- Soares, J. (2010) Welfare impact of a ban on child labor. *Economic Inquiry* 48(4): 1048–1064.
- Strand, H., Rustad, S. A., Mogleiv Nygård, H., and Hegre, H. (2020) Trends in Armed Conflict, 1946–2019, *Conflict Trends*, 8. Oslo: PRIO.
- Strauss, J and D Thomas (1995) "Human resources: Empirical modeling of household and family decisions", in *Handbook of Development Economics Volume 3*, ed J Behrman and T Srinivasan,

1883 - 2023, North-Holland, Amsterdam.

Swaminathan, M. (1998) Economic growth and the persistence of child labour: evidence from an Indian city. *World Development* 26(8): 1513–1528.

Tagliati, F. (2022). Child Labor under Cash and In-Kind Transfers. *The World Bank Economic Review*, 36(3), 709-733.

Tang, C., and Zhao, Z. (2023). Informal institution meets child development: Clan culture and child labor in China. *Journal of Comparative Economics*, 51(1), 277-294.

Torres, R. (2003) How can education policies reduce child labour? In M. Ulewicz (ed.) *Monitoring International Labor Standards: Human Capital Investment: Summary of a Workshop*. Washington, DC: National Research Council.

UNICEF/ILO 2004: UNICEF, I. (2004). *Addressing Child Labour in the Bangladesh Garment Industry 1995-2001: A synthesis of UNICEF and ILO evaluation studies of the Bangladesh garment sector projects*. ILO and UNICEF, New York and Geneva.

United Nations Statistical Division (UNSD) (2021) *SDG Indicators*
<https://unstats.un.org/sdgs/metadata/?Text=Goal=8Target=8.7>

Upadhyay, U. D., Gipson, J. D., Withers, M., Lewis, S., Ciaraldi, E. J., Fraser, A., Huchko, M. J., and Prata, N. (2014). Women's empowerment and fertility: a review of the literature. *Social science and medicine*, 115, 111-120.

U.S. Department of Labor (2000) "By The Sweat And Toil Of Children (vol.VI): An Economic Consideration Of Child Labor", U.S. DOL, Bureau of International Labor Affairs, Washington DC.

U.S. Department of Labor (2023). Departments of Labor, Health and Human Services announce new efforts to combat exploitative child labor. Press release.
<https://www.dol.gov/newsroom/releases/osec/osec20230227>

APPENDIX

Table A1: Estimates of various forms of child work (5 – 14 years old) by region, years 2000 - 2016

	<u>Children</u>	<u>Children in employment</u>		<u>Child labour</u>		<u>Hazardous work</u>	
	('000)	('000)	%	('000)	%	('000)	%
World							
2000	1,199,300	211,000	17.6	186,300	15.5	111,300	9.3
2004	1,206,500	196,047	16.2	170,383	14.1	76,470	6.3
2008	1,216,854	176,452	14.5	152,850	12.6	52,895	4.3
2012	1,221,071	144,066	11.8	120,453	9.9	37,841	3.1
2016	-	130,364	10.6	114,472	9.3	35,376	2.9
Asia and the Pacific							
2000	655,100	127,300	19.4	-	-	-	-
2004	650,000	122,300	18.8	-	-	-	-
2008	651,815	96,397	14.8	81,443	12.5	16,332	2.5
2012	637,579	64,419	10.1	52,702	8.3	-	-
Latin America and Caribbean							
2000	108,100	17,400	16.1	-	-	-	-
2004	111,000	11,047	10.0	-	-	-	-
2008	110,566	10,002	9.0	9,722	8.8	4,529	4.1
2012	110,035	8,986	8.2	7,924	7.2	-	-
Sub-Saharan Africa							
2000	166,800	48,000	28.8	-	-	-	-
2004	186,800	49,300	26.4	-	-	-	-
2008	205,319	58,212	28.4	52,229	25.4	26,045	12.7
2012	220,077	57,623	26.2	47,735	21.7	-	-
Other regions							
2000	269,300	18,300	6.8	-	-	-	-
2004	258,800	13,400	5.2	-	-	-	-
2008	249,154	10,700	4.3	9,456	3.8	5,989	2.4
2012	253,380	13,038	5.1	12,091	4.8	-	-

Data for 2000 to 2012 compiled from Diallo et al (2013). Data for 2016 compiled from ILO (2017).

A1: SDG 8.7 in relation to other SDGs

SDG 8.7 can be connected to many of the other SDGs. As discussed above, child labour has been primarily linked to poverty and lack of quality and/or accessible schooling. Armed conflict and natural disasters also contribute significantly to child labour. Therefore, SDG 1 – end poverty in all forms everywhere – is particularly relevant to ending child labour.

The elimination of child labour will at least partially promote the attainment of other sub-goals within SDG 8. For example, SDG 8.1 - sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries – and SDG 8.5 - by 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value – are also particularly relevant, as economic growth will be key in reducing poverty, and decent work for adults will be an important component in raising household income and moving away from reliance on child labour. SDG 8.6 - promote youth employment, education and training – is relevant as it is focused on contributing to children’s human capital. SDG 8.8 - protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment – is clearly relevant to the elimination of the worst forms of child labour. Given the discussion on credit market imperfections in subsection 3.1.2 above, SDG 8.10 - strengthen the capacity of domestic financial institutions to encourage and to expand access to banking, insurance and financial services for all – is also clearly relevant.

SDG 4.1 – by 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes – and SDG 4.2 – by 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education – are also important for reducing child labour.

Given the fact that the incidence of child labour is significantly higher in areas experiencing armed conflict, SDG 16 – promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels – is also highly relevant.

SDG 13 - take urgent action to combat climate change and its impacts – is related to SDG 8.7 as child labour has been found to be higher in areas that have suffered natural disasters. Further, the majority of children work in the agricultural sector, which is particularly vulnerable to climate change.

Finally, SDG 5.2 - eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation – is clearly related to the goal of eliminating modern slavery, human trafficking, and the worst forms of child labour.