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## **The Catch-22 Irony of Child Labor and The Urgency for State Intervention**

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**ABSTRACT**

Child labor (CL) has been found to enhance substantially the poorest households' chances for short-term survival. CL could also—it has been argued—facilitate CWs' socialization and development of moral values and survival skills. This article aims to demonstrate that these short-term benefits are considerably outweighed by the corresponding long-term detrimental repercussions on CWs' health, education, and earning potential in adulthood. While the poorest households might strategically employ CL as a last resort to ensure their short-term survival, it is CL per se that maintains these families in extreme poverty through the impediment to CWs' human capital accumulation, leaving them with few options but continuing to resort to CL to survive—hence, the Catch-22 irony of CL. It is argued from extant evidence of intergenerational transmission of poverty and CL that without state intervention, these poorest families with CWs would not be likely to escape from this kind of poverty-and-CL intergenerational cycle, with negative implications for the nation's prospects of achieving long-term socioeconomic development. Thus, this article contends that it would be beneficial for the Brazilian government to treat the elimination of CL as a top national priority.

Children are the future: childhood is a once-and-for-all biological window of opportunity for investment in human beings. Losses incurred can never be made good and a failure to support children as children will have permanent effects on society's capacity to develop. (Edwards 1996:820 in Stegeman 2004:53)

Child labor and poverty are inevitably bound together and if you continue to use the labor of children as the treatment for the social disease of poverty, you will have both poverty and child labor to the end of time. (Grace Abbott in World Bank a) <sup>1</sup>

The 1989 United Nations Convention on the Rights of the Child stipulates that children have inherent rights to receive an education and to be free from exploitation (Kassouf, McKee, and Mossialos 2001:21). Childhood is unquestionably "a once-and-for-all biological window of opportunity for investment in human beings" (Edwards 1996:820 in Stegeman 2004:53). A supportive environment that provides adequate nutrition, rest, and recreation is absolutely essential for children's proper development. Children who are obliged to work for survival are stripped of their basic human rights. They are deprived of the physical, social, and psychological stimulation vital for their healthy development (Ambadekar et al. 1999:303). Child labor (CL) is anything but banal. It is arguably "the largest single cause of child abuse" around the world (Scanlon et al. 2002:401).

The global issue of CL has captured increasing attention from scholars, policymakers, and the general public in recent decades (Edmonds 2007:3610). Many development projects have been undertaken to tackle this social phenomenon (Beegle, Dehejia, and Gatti 2005). The global labor force participation rate of children aged 10-14 declined from 27 to 13 percent over the second half of the twentieth century. This remarkable decrease of almost 52 percent is mainly attributed to income growth in developing countries (International Labor Organization [ILO] 1996a in Hussain and Maskus 2003:993-994). Nonetheless, according to the ILO in 2006, there were still over 317 million child workers (CWs) worldwide (de Vasconcelos et al. 2010:369) but this figure is quite likely underestimated because much CWs' labor is hidden in the informal economy (ILO 1997 in Fassa et al. 2000:56). Ninety-five percent of the world's CWs live in developing countries, and at least half of them work "full time, every day, all year round" in hazardous and unsanitary conditions that imperil their health and even their lives (Agbu 2009a:1; ILO 2006 in de Vasconcelos et al. 2010:369; UNICEF 1997 in Roggero et al. 2007:271; ILO 2002 in Scanlon et al. 2002:401). Clearly, much work remains to be done to eradicate CL, or at the very least, reduce its global incidence to as close to zero as possible.

Brazil is a relatively late joiner in the global fight to eradicate CL. Prior to the early 1990s, the issue of CL was not considered problematic. In fact, CL “was often not only tolerated, but encouraged as a solution to poverty and juvenile delinquency. Work was contrasted with idleness rather than with schooling, play, and adequate child care” (see section 2.2) (Falconer 2009:354).<sup>2</sup>

Today’s Brazilian Constitution states that employers may not hire anyone younger than 18 years old for occupations classified as “dangerous” and 16 years old for the “non-dangerous” ones.<sup>3</sup> The Constitution also prohibits the employment of children under age 16, regardless of the level of health risk (de Vasconcelos et al. 2010:369-370; Kassouf and Hoffmann 2006:106). Accordingly, the workforce participation rate for children aged 10-14 fell from 20.4 percent in 1992 to 14.9 percent in 1999 (Sedlacek and Gustafsson-Wright 2001:5).

Nevertheless, Brazil still ranks among the Latin American countries with the highest rates of CL (Kruger, Berthelon, and Soares 2010:164), almost too “high for an upper-middle income country” (Sedlacek et al. 2009:37).<sup>4</sup> In 2007, 10.8 percent (4.8 million) of Brazil’s total child population aged 5-17 were still economically active (Instituto Brasileiro de Geografia e Estatística [IBGE] 2008 in de Moura, da Silveira Bueno, and Leony 2009:5). Nearly 40 percent of these CWs are still working over 40 hours per week (Fassa et al. 2005:667),<sup>5</sup> for wages well below the legal minimum wage or even for no compensation at all (Fassa et al. 2000:57, 59; Forastieri 2002:21).<sup>6,7</sup> Evidently, CL is still a major problem in Brazil, and is particularly prominent among boys, in rural areas and the Northeast region of the country, in the agricultural industry (Sedlacek and Gustafsson-Wright 2001:5), and in the informal economy (Fassa et al. 2005:667; Ashagrie 1993 and ILO 1996a and b in Forastieri 2002:21).<sup>8</sup>

This article uses a cost-benefit perspective to analyze the socioeconomic impact of child labor force participation on child workers (CWs) and their immediate families within the Brazilian context. CL has been found to enhance substantially the poorest households’ chances for short-term survival. CL could also—it has been argued—facilitate CWs’ socialization and development of moral values and survival skills. This article intends to demonstrate that these short-term benefits are nevertheless substantially outweighed by the corresponding long-term detrimental repercussions on CWs’ health, education, and earning potential in adulthood.<sup>9</sup> Thus, it is argued that while the poorest households might strategically employ CL as a last resort to ensure their short-term survival, it is CL per se, through the impediment to CWs’ human capital accumulation, that maintains CWs and their families in extreme poverty and leaves them with few options but to resort to CL to survive—hence, the Catch-22 irony of CL. It is postulated from extant

evidence of intergenerational transmission of poverty and CL that without state intervention, these poorest families with CWs would not be likely to escape from this kind of poverty-and-CL intergenerational cycle, with its negative implications for the nation's prospects of achieving long-term socioeconomic development. This article therefore contends that it would be beneficial for the Brazilian government to treat the elimination of CL as a top national priority.

## **1. DEFINITION OF CHILD LABOR**

Much effort has been made by social scientists and policymakers to define CL clearly. To begin, a "child" is anyone "under a specifically defined age," usually 18 (Stegeman 2004:51). As for CL, two specific definitions seem more comprehensive than others within the extant scholarship. The first regards both economic exploitation and the occupational risks to a child's physical and intellectual development as the core defining criteria for CL. Sarah Beatrice Adenike Oloko (1997) refers to CL as "any type of paid, unpaid or exploitative work that places the interests of the beneficiary above those of the child, and is detrimental to the physical, mental, social, educational or moral development of the child" (Oloko 1997:48 in Agbu 2009b:13). Stated differently, CL is any work performed by children that consumes their physical and mental energy and jeopardizes their health and safety; yet, the fruits of their labor mostly (if not entirely) accrue to people other than themselves (Agbu 2009b:13).

The second way of conceptualizing CL is to distinguish it from child work. Work is argued to be an umbrella term for "any type of physical (or mental) engagement done for any purpose" and could range from very beneficial to very harmful (Lieten 2009:30). CL is one specific type of work: one that is harmful to children's physical and intellectual development (Chowa, Ansong, and Masa 2010:1509; Libório and Ungar 2010:327; Lieten 2009:30). International conventions, such as ILO Convention No. 138 and especially No. 182 as well as the aforementioned 1989 United Nations' Convention on the Rights of the Child, define CL "not by the activities performed by the child but by the consequences of such activities" on the child's wellbeing and development (Roggero et al. 2007:271). In other words, whether economic exploitation takes place or not is irrelevant; occupational harm to a child's health and development is both a necessary and a sufficient criterion for that work to be qualified as CL. Hence, even if CWs are 'very well' compensated by local standards, as long as there is evidence that the work involved is detrimental to their normative growth and wellbeing, those CWs are said to be engaged in CL. This article will employ this latter definition of CL.

## **2. FEW SHORT-TERM BENEFITS**

Although most people in the North almost automatically condemn CL, this

practice is arguably not “intrinsically bad” (Kielland and Tovo 2006:10-14). Work may contribute to building CWs’ “dispositional resilience,” that is, the personal characteristics (for instance, hardiness) (Maddi 2005:261-262 in Almedom, Brensing, and Adam 2010:134) that increase a child’s capacity to prepare for, endure, and perspicaciously manage adversity by “actively making meaning out of adversity, with the goal of maintaining ‘normal’ function without fundamental loss of identity” (Almedom et al. 2010:128). Work may enhance CWs’ “dispositional resilience” through seven pathways: “access to material resources,” “cultural adherence,” “identity,” “power and control,” “relationships,” “social justice,” and “social cohesion” (Libório and Ungar 2010:330-331). Because of space constraints, this article focuses its analysis only on the first two of these channels: “access to material resources” and “cultural adherence,” henceforth referred to as “short-term household survival strategy” and “socialization and development of moral values and survival skills,” respectively.

### 2.1. *Short-term Household Survival Strategy*

Brazil is a relatively affluent country. In fact, an analysis of a data set of recent gross domestic products at purchasing power parity exchange rates of 227 nations indicates that Brazil ranks among the ten largest economies in this sample—and, arguably, in the world (Central Intelligence Agency [CIA] b; Skoufias and Katayama 2011:897).<sup>10</sup> However, it is also one of the most unequal countries worldwide as regards income distribution. Out of 140 countries, Brazil has the thirteenth highest level of “inequality in the distribution of family income in a country,” with a Gini index of 53.9 in 2009 (CIA a).<sup>11</sup> Even though income inequality has recently fallen, Brazil’s Gini index has nonetheless remained high over the past three decades (Skoufias and Katayama 2011:897). A 2006 study indicates that the average income of the richest 20 percent of families is 33 times larger than the mean income earned by the poorest 20 percent of families in Brazil (Menezes Filho, Fernandes, and Picchetti 2006:408). A 2001 study in turn suggests that the income accruing to the richest one percent alone exceeds that flowing to the poorest 50 percent of the population in Brazil (de Barros, Henriques, and Mendonça 2001 in Gacitúa-Marió, Woolcock, and von Bulow 2008:3; see also Suplicy 2007:1). The same is true for poverty. Despite a decline in Brazil’s poverty rate from 40 percent in 1977 to 36 in 2000, the poverty rate is still high in comparison to other states with comparable per-capita income (de Barros, Henriques, and Mendonça 2001 in Gacitúa-Marió et al. 2008:3). Nevertheless, 21.4 percent of the Brazilian population was still living below the national poverty line in 2009 (World Bank b). And for approximately 40 percent of these people, malnutrition is still a challenge against which they have to fight continually (Barros et al. 2008:S417).

CL may represent a short-term household survival strategy to which parents resort when the household income seems no longer sufficient to meet all the family members' basic needs (food, clothing, and shelter) (Seabrook 2001:38; Siaens and Wodon 2000:78).<sup>12</sup> By working and turning over the bulk of their earnings to their parents, CWs (i) improve to a certain extent their households' immediate financial security, thus augmenting their families' and their own chances for survival in the short run; and (ii) enhance their families' and their own access to other resources and opportunities (for example, financial, educational, medical, and employment matters) (Libório and Ungar 2010:330). As a result, CWs and their family members could potentially experience improved wellbeing.<sup>13</sup> However, one question needs to be raised: Given that the overwhelming majority of Brazilian CWs earn only a fraction of the minimum wage (CWs earn on average 75 percent of the legal minimum wage) (Fassa et al. 2005:667), how significant could the financial contribution from CL really be for a household's economic survival?

Research reveals that for many families of the poorest classes, the earnings CWs bring home represent a rather sizeable portion of their households' total income (Galli 2001:21).<sup>14</sup> In 32 percent of all urban households and 40 percent of all rural households in Brazil, CWs were found to contribute over 20 percent of their families' total income. And in about 10 percent of households nationwide, children's earnings were found to constitute over 40 percent of their families' total income (IBGE 1995 in Kassouf et al. 2001:26). Studies from other parts of the world have yielded similar figures (Sharma and Mittar 1990 and Myers 1989 in Kassouf et al. 2001:26). Indubitably, CWs' incomes represent a crucial and perhaps even indispensable supplement for many poorer households' budgets, without which CWs' and their families' immediate and short-run economic survival would be threatened.

## 2.2. *Socialization and Development of Moral Values and Survival Skills*

In addition to enhancing poorer families' chances of survival, CL could potentially facilitate CWs' socialization and promote their development of moral values and survival skills.<sup>15</sup> Many people in Santa Lucia (Brazil) strongly believe that parents are inherently responsible for ensuring that their children have begun to become habituated to labor by the age of 14 at the latest (Mayblin 2010:39-42). Children who do not work by this age are considered lazy and irresponsible by the rest of the community, and the brunt of the blame falls on the parents (Madsian 2004:130; Mayblin 2010:39-42). Why is CL encouraged in Santa Lucia? Santa Lucians' perspective on CL is clearly at odds with the nearly ubiquitous negative reactions any mention of CL would likely elicit in the North.<sup>16</sup>

*On socialization.* In Santa Lucia, a child's entrance into the world of work



is considered a “rite of passage” wherein s/he leaves behind his/her childhood and status as a dependent and ‘puts on’ the status of an adult. Through work, the child learns local norms, mores, and practices, thus developing the cultural competence necessary to bond with and enjoy a meaningful existence amongst other members of his/her community (Libório and Ungar 2010:330). In fact, “many traditional cultures include [CL] as an integral part of the child’s socialization and achievement of status in the local community” (Woolf 2002:477).

*On the development of moral values.* Santa Lucians regard morality as a basic need, like food, clothing, and shelter (Mayblin 2010:44). They believe that “knowledge [that is, schooling] does not, in and of itself, make a moral person” (Mayblin 2010:26). Only by engaging in labor do children learn *coragem* (courage). *Coragem* does not simply mean “the ability to disregard fear,” it refers to “an attitude that allows a person to perform work that is, in some way, mentally, emotionally and physically challenging” (Mayblin 2010:37-39) and to persevere despite these challenges. It is only by learning *coragem* that children are able to develop morality (Mayblin 2010:44). This view may be explained by two components of the Santa Lucian culture: (i) the local conception of late childhood (or adolescence), and (ii) the norms and values from Catholic teachings.

Late childhood and adolescence are conceptualized as “a period of ontological uncertainty and impending transition; one in which an original state of innocence is ever-diminishing and being replaced with a state of [‘adult-like’] knowledge and a newfound capacity for sin” (Mayblin 2010:26, 33). Yet, *jovens* (adolescents) have not yet developed the tools necessary to handle these ‘adult’ matters. “That is, they have not yet established full moral personhood” (Mayblin 2010:33). Also, according to Catholic teachings, humans are inherently plagued with selfishness and greed. The only way to be forgiven for their sins is to be *trabalhadors*, that is, “hard working sufferers ... whose capacity to labour and suffer on behalf of their family is popularly perceived as being beyond the call of duty” (Mayblin 2010:27).

Tying these two cultural components together: Children need to get accustomed to labor so they can develop the *coragem* necessary to become *trabalhadors*, thereby equipping themselves with the moral ‘tools’ (for instance, to persevere, work hard, and care for others in a self-sacrificing manner) to obtain forgiveness for the sins they would likely—by human nature—commit as soon as they become *jovens*, and all life long until the day they die. Equally important is the age of entry into the world of work. The younger children begin to work, the more likely they will be to develop a stronger level of *coragem*, and the more morally equipped they will be to handle their “newfound capacity for sin” once they enter

into adolescence (Mayblin 2010:26-44).

*On the development of survival skills.* There are several beneficial by-products to the Santa Lucian cultural emphasis on the importance of developing *coragem* and being a *trabalhador*. Firstly, children and *jovens* learn to develop the work discipline that is crucial for everyday survival amid extreme economic hardships (Kielland and Tovo 2006:10; Seabrook 2001:39). They learn to become independent, autonomous, and self-sufficient members of society. Secondly, work provides them with an apprenticeship opportunity to develop (hard and soft) skills and acquire real-world experience—something that schooling cannot offer (Seabrook 2001:38, 112). Evidence suggests, however, that the type of work CWs typically perform is mostly unskilled, and hence the opportunity for CWs' to develop occupational skills is actually quite limited (Galli 2001:21). More empirical research is definitely needed to investigate the sociocultural effects of CL, and particularly the effects of CL on CWs' socialization and development of moral values and survival skills. Nevertheless, as discussed in section 2.1, evidence shows that CWs' financial contributions represent a rather substantial share of their households' income and thus mitigate the struggle for short-term survival. Clearly, CL is not "intrinsically bad" in all of its effects (Kielland and Tovo 2006:10-11).

### 3. SEVERAL LONG-TERM COSTS

Although CL's consequences may not necessarily be exclusively negative, the foregoing short-lived benefits are arguably largely offset by the concurrent harmful and enduring effects of CL on CWs' normative growth and development. By impeding human capital accumulation, CL considerably diminishes CWs' prospects of breaking out of poverty and leading healthy, productive, and meaningful lives. Let us examine CL's impact on each of the following outcomes: CWs' health, education, and lifetime earnings.

#### 3.1. *Poorer Short- and Long-run Health Outcomes*

CL, especially at the younger ages, may exact substantial (and even irreversible) damages on CWs' health, thereby lowering their future health-related quality of life.<sup>17</sup> This article will begin by investigating some of the channels through which CL could lead to poorer health outcomes. It will then analyze the health and safety hazards within Brazil's top three CL-intensive industries, namely agriculture, domestic service, and manufacturing. Lastly, it will examine the empirical evidence of CL's consequences on CWs' (short- and long-term) health.

##### 3.1.1. *How does CL impact health outcomes?*

The overwhelming majority of CWs worldwide work in the shadow economy (Scanlon et al. 2002:401). Since the informal sector lies outside state regulation, this means that most CWs are invisible workers. They are not protected

by law from abusive, exploitative, and harmful task assignments and/or workplace conditions. As a result, work may exact a toll upon their health and development. This will be discussed in further detail in section 3.1.2.

Besides, even if CWs and adult workers are exposed to the same occupational hazards—that is, CWs work in exactly the same environment as and perform exactly the same tasks assigned to their adult colleagues—they and the adult workers would experience the adverse effects in very different ways. This is so for two major reasons. Firstly, the physical environment in the workplace, the organization of job tasks, and laws and regulations as regards occupational health and safety are mainly designed for adult workers. For instance, workstations, work tools, and industrial machinery are ergonomically inappropriate for children; personal protective equipment is often either unavailable to or inadequate for children; chemical exposure limits are set according to adult sensitivity levels (Forastieri 1997 in Fassa et al. 2000:59-60; Forastieri 2002:23). Secondly, “children differ biologically from adults in their anatomic, physiologic, and psychological characteristics because they are undergoing ... [rapid] growth and development” (Bequele and Myers 1995, Forastieri 1997, and ILO 1998 in Fassa et al. 2000:59). For these two reasons, CWs face greater occupational health and safety hazards and experience the health impacts in a much stronger and debilitating fashion than adults do, with negative implications for their chances to live a productive and meaningful existence later in their lives (Bequele and Myers 1995, Forastieri 1997, and ILO 1998 in Fassa et al. 2000:59; Forastieri 2002:11-23).

### 3.1.2. *The top three CL-intensive industries in Brazil*

In the mid-2000s, Brazil’s top three CL-intensive industries (in decreasing order: agriculture, domestic work, and manufacturing) jointly employed roughly 60 percent of all CWs nationwide (Fassa and Wegman 2009:349). This article will examine the health and safety hazards in these three industries in order to gain a better understanding of the occupational health risks faced by the majority of CWs in Brazil.

First, the agricultural industry accounts for the highest share of CWs in Brazil, more specifically, about 38 percent (2.4 million) of CWs and one in two CWs under age 15. Agricultural work typically involves long hours, physically demanding labor, and high exposure to dust, chemicals, noise, and extreme temperatures and unsanitary work environments (Fassa and Wegman 2009:349). Many theoretical concerns have been raised in the occupational epidemiology literature about the risks that agricultural work may pose for CWs’ normative cell, hormonal, and musculoskeletal development (Bequele and Myers 1995, Committee on the Health and Safety Implications of Child Labor 1998, and Forastieri 1997 in

Fassa et al. 2000:60). An empirical study found that agricultural work accounted for the highest share of occupational injuries (46.2 percent) among children aged 5-17 admitted to the emergency services of two major public hospitals in Sergipe, Brazil (de Vasconcelos et al. 2010:371). Indeed, agriculture ranks worldwide among the industrial sectors with the highest mortality and morbidity rates. Yet, it is, ironically, one of the sectors with the lowest levels of regulation (Committee on the Health and Safety Implications of Child Labor 1998 and Wilk 1993 in Fassa et al. 2000:57).

Domestic service is the second most CL-intensive industry, employing approximately 11.5 percent of all Brazilian CWs. More specifically, eight percent of all CWs aged 10-14 and one in three female CWs labor in the domestic service sector (Bureau of International Labor Affairs 1998 in Fassa et al. 2000:59; Fassa and Wegman 2009:349). Domestic employment often includes a live-in type arrangement; one in three domestic workers under 16 lives in the workplace (Fassa and Wegman 2009:349). Domestic employment is also often characterized by flexible scheduling (which typically means continuously fluctuating number of hours of work per day or per week and the expectation to be at the employer's constant disposal regardless of the time when summoned), few vacation or sick days, and limited-to-no opportunity for education and training. Moreover, domestic work is mostly informal and, thus, invisible and unregulated. Domestic workers are typically socially isolated: They are either partially or completely cut off from their social support networks because of geographic distance or difficult/lack of access to communication technologies. Domestic workers, and especially child domestic workers, are therefore particularly vulnerable to mistreatment and exploitation (meaning little-to-no financial compensation, bondage, insufficient food, and inadequate living space), and to physical, moral, and sexual abuse (Bureau of International Labor Affairs 1998 and UNICEF 1997 in Fassa et al. 2000:59). Research shows that child domestic workers aged 10-17 in Pelotas, Brazil are 1.17 times more likely than nonworking children to experience musculoskeletal pain in general and 1.23 for back pain specifically, even after controlling for confounding factors (Fassa et al. 2005:667-668).

The manufacturing sector is the third most CL-intensive industry in the country, comprising over 10 percent of all CWs in Brazil (Fassa and Wegman 2009:349). Manufacturing work entails high risk of occupational injuries, "ergonomic hazards (with awkward postures, repetitive and monotonous work, and heavy physical work), and exposure to noise and chemicals (solvents, dyes, and sodas, among others)" (Fassa 2003 in Fassa and Wegman 2009:350). Again, evidence indicates that CWs currently working in manufacturing in Pelotas, Brazil are 1.31 times more likely to report musculoskeletal pain (and 1.714 times for back

pain in particular) than nonworking children (Fassa et al. 2005:667-668).

### 3.1.3. *Further empirical evidence: Brazil*

A number of studies using Brazilian data corroborate the aforementioned findings on the negative impact of CL on CWs' short- and long-term health. Roberto Borges. A. de Vasconcelos and colleagues' (2010) study of 917 children aged 5-17, admitted for external causes to the emergency rooms of two major hospitals in Aracaju, Brazil shows that four percent of these children were injured while performing work with five percent lethality (p. 369). The actual number of work-related injuries is, however, very likely much higher because of underreporting. For instance, 60 percent of male and 38.5 percent of female adolescents who suffered a work-related injury in Salvador, Brazil did not seek out any medical help (Santana et al. 2003 in de Vasconcelos et al. 2010:372). Moreover, the incidence of occupational injuries is found to be the highest in male CWs (95 percent); in the 14-17 age category (77 percent); in agricultural activities (46 percent); without any safety training (73.5 percent) and without using any personal protective equipment (94 percent) (de Vasconcelos et al. 2010:369).

Ana Lúcia Kassouf, Martin McKee, and Elias Mossialos (2001) found that adult respondents who worked when they were children are significantly more likely to report poor health status as adults than those who almost never worked during their childhood. Because of space constraints, this article will only examine the odds ratios that respondents—aged 28-37 at the time of this study—report “less than good health as opposed to excellent, very good or good health” (p. 23). For men, compared to those who joined the workforce at the age of 15 or older, respondents who started working between the ages of 5-9 and those who started working between the ages of 10-14 are 1.86 times and 1.58 times more likely to report poor health, respectively, once adjusted for education. The corresponding odds ratios once adjusted for household income are 1.97 and 1.69. Female respondents' self-reported health status exhibit a similar pattern. Compared to those who joined the workforce at the age of 15 or older, female respondents who started working between the ages of 5-9 and those who started working between the ages of 10-14 are 1.24 and 1.12 times more likely to report poor health, respectively, when adjusted for education. The corresponding odds ratios, adjusted for household income, are 1.12 and 1.08. These figures cogently indicate that the lower the age of entry into the labor market, the higher the odds of reporting poor health as an adult—this finding remains significant even after adjustment for education or household income (p. 27).

In consonance with the above findings by Kassouf et al. (2001), Chanyoung Lee and Peter F. Orazem's (2010) study reveals that even though the negative health

consequences were quite small, the occurrence of chronic diseases and disabilities was consistently higher among respondents who, in their childhood, joined the workforce early in comparison to those who joined at an older age. Their study suggests that the likelihood of “an early onset of physical ailments such as back problems, arthritis, or reduced strength or stamina” may be reduced by both spending more time in school and postponing entry into the labor force (p. 99). Undoubtedly, joining and participating in the labor force, especially at a younger age, comes with severe costs for CWs living a healthy, productive, and meaningful life once they reach adulthood.

### 3.2. *Lower Educational Enrollment, Attendance, Attainment, and Achievement*

Numerous studies provide substantial empirical evidence on the existence of a work-versus-schooling trade-off among children from different regions of the world (Ray 2009:118-122).<sup>18</sup> This trade-off often results in a decline in student enrolment and attendance rates, educational attainment, and academic achievement.<sup>19</sup> This is a major concern that warrants intervention because education is of critical importance to improving standards of living in developing countries “by lifting the people who are educated out of poverty and by improving the quality of human resources that are available for national economic development” (Heady 2003:385; see also Siaens and Wodon 2000).

#### 3.2.1. *How does CL impact educational outcomes?*

CL may significantly impair children’s normative intellectual and physical development and exact detrimental effects on their learning outcomes (Ray 2009:118-122). CWs’ time and energy is divided between work and school. The more hours children work, the more tired they would likely be, and the less time they would have to study at home, to rest, and to sleep. Many CWs are thus less able to attend school and/or derive full benefits from teachings. Their grades usually decline and ultimately, all too often, they end up dropping out of school altogether (Heady 2003:385; Sedlacek et al. 2009:37; Stegeman 2004:52).

#### 3.2.2. *Empirical evidence: Latin American countries, including Brazil*

The conclusions of several research projects corroborate the above findings. Guilherme Sedlacek and colleagues’ (2009) study of 18 Latin American countries, including Brazil, demonstrates that CL significantly reduces not only school enrollment and attendance, but even more significantly educational attainment. This finding is consistent across all the countries. In fact, all else being equal, a 10 percent augmentation in children’s odds of working was found to diminish the chances of attending school by seven percent and increase the likelihood of falling behind in school by 12 percent (pp. 48-50).

Similarly, Mario A. Sánchez, Peter F. Orazem, and Victoria Gunnarsson’s

(2009) examination of 11 Latin American countries, including Brazil, yields solid evidence, consistent across all the countries, that CL intensity (in terms of time and energy spent on work while being at school) and mathematics and language skills are inversely related. This finding remains significant even when family factors (single-parent or two-parent family configuration, and the household head's [or heads'] average education), teacher's education and teaching experience, and school characteristics (rural or urban, public or private, single-grade or multi-grade classroom, and pupil-teacher ratio) are held constant. The higher CL intensity is, the lower the child's performance on language and mathematics tests (pp. 118, 127).

More importantly, even modest levels of CL are found to have detrimental effects on CWs' cognitive development and language and mathematics test scores (Sánchez et al. 2009:118, 127). In comparison to children who work often, those who never work and those who sometimes work display, on average, advantages of 18.6 percent and 6.9 percent on language tests and advantages of 15.4 percent and 5.9 percent on mathematics tests, respectively. For Brazil specifically, the corresponding figures are advantages of 16.7 percent and 3.5 percent on language tests and 21.9 percent and 8.2 percent on mathematics tests (Sánchez et al. 2009:122-123). Put differently, nonworking children in Brazil scored, on average, 16.7 percent higher on language tests and 21.9 percent on mathematics tests than their counterparts who work often. Brazilian children who occasionally work scored, on average, only 3.5 percent higher on language tests and 8.2 percent higher on mathematics tests than their peers who work often. That is, even at moderate levels, CL "consistently makes a year of education less productive as regards the generation of human capital" (Sánchez et al. 2009:119). The policy implication of these findings is that any discussion on a threshold number of weekly work hours beyond which CL begins to exact a cost on CWs' educational outcomes would be irrelevant. Evidence shows that no matter how low its intensity, CL exerts significant harm on children's cognitive development, and that it should be altogether eradicated.

### 3.3. *Depressed Earning Potential in Adulthood*

As noted earlier in sections 3.1 and 3.2, CL negatively impacts CWs' health and educational outcomes, and thus substantially hinders CWs' human capital accumulation. Since the magnitude of one's human capital is positively correlated with one's earning potential (Becker 1962:9), it is reasonable to posit that CL would also (indirectly, through its effects on health and education) adversely impact CWs' earning potential in adulthood, and thus impede CWs' way out of the poverty cycle into which most of them were born.

#### 3.3.1. *How does CL indirectly impact earning potential in adulthood?*

*On health impacts on earning potential.* Evidence demonstrates the existence

(in both developed and developing countries) of a positive relationship between health status and lifetime potential earnings (Case, Fertig, and Paxson 2005:379, 384-387; Palloni et al. 2009:1578-1580; McLachlan 2006:S39-S41). Duncan Thomas and John Strauss' (1997) study in urban areas in Brazil reveals that a one percent increase in height (which may reflect better nutrition and physical wellbeing) is associated with a 2.0-2.4 percent rise in wages and earnings in the labor market (pp. 170, 180). Poor health negatively impacts adult earnings for several reasons. It decreases productivity at work, augments the likelihood of absenteeism, reduces the chances of being promoted, and increases the odds of experiencing prolonged unemployment—each in and of itself (or the combination of all) contributes to lower earning potential in adulthood.

*On educational impacts on earning potential.* Academic capital (that is, the level of cognitive skills, which is shaped by both educational attainment and achievement) is positively related to earning potential in adulthood. Several studies demonstrate that much of the variation in labor market wages is attributable to education (Lam and Levison 1991 and Strauss and Thomas 1991 in Thomas and Strauss 1997:170). More specifically, the association between higher educational attainment and a greater ability to command higher wages as an adult was found to be almost entirely explained by enhanced linguistic and mathematical skills (Glewwe 2002 in Sánchez et al. 2009:127). Indeed, in comparison to illiterate workforce participants, workers with literacy, workers with primary schooling, and workers with some secondary education are able to command 50 percent, 130 percent, and 550 percent higher wages, respectively (Thomas and Strauss 1997:170). Evidently, education is of critical importance to CWs' economic wellbeing in adulthood.

### 3.3.2. *Empirical evidence: Brazil*

While earlier scholarship provides mixed conclusions as to whether CL harms adult earnings, more recent empirical evidence not only corroborates the existence of CL's adverse effects on adult earnings but also indicates that this impact is substantial. Indeed, CL theoretically reduces adult earnings because it (i) lowers CWs' educational attainment (Patrinos and Psacharopoulos 1997 in Ilahi, Orazem, and Sedlacek 2009:87), and/or (ii) decreases their educational achievement (Akabayashi and Psacharopoulos 1999 in Ilahi et al. 2009:87).

Nevertheless, CL could also enhance adult earnings because it could (a) boost household income and improve the odds that parents could afford to enroll and keep their children in school (Patrinos and Psacharopoulos 1997 in Ilahi et al. 2009:88); (b) increase CWs' work experience, thereby generating occupational human capital (Mincer 1974 in Ilahi et al. 2009:88);<sup>20</sup> and (c) help parents "build an endowment of physical assets" that could improve the chances of CWs' families



accessing credit in a credit-constrained context. This endowment could then be transferred to the child once s/he reaches adulthood (Ilahi et al. 2009:88). What then is CL's net impact on adult earnings?

Nadeem Ilahi, Peter F. Orazem, and Guilherme Sedlacek's (2009) econometric analysis using Brazilian data reveals that the negative effects far exceed the positive ones, such that the net impact of early or premature entry into the labor market is (i) an average loss of 13 to 20 percent lifetime earnings; and (ii) an increased risk of 13 to 31 percent of experiencing poverty in adulthood, especially if one has joined the workforce before the age of 12 (p. 88). Clearly, CL indirectly (through channels such as health and education) depresses CWs' earning potential in adulthood.

#### 4. CONCLUSION

Many poorer households in Brazil employ CL as a strategy for short-term survival for lack of better alternatives. Available evidence shows that CWs' financial contributions constitute a rather substantial share of their families' income. Sending children into the labor market thus considerably eases these households' daily struggle for survival and enhances their short-term resilience to adversity. CL could also potentially facilitate CWs' socialization to local mores and practices and foster their development of moral values and survival skills. However, as demonstrated earlier, these provisional benefits are substantially outweighed by the opportunity cost of CL, that is, the long-term detrimental repercussions that CL exerts on CWs' health, education, and earning potential in adulthood. CL's impediment to CWs' human capital accumulation thus increases CWs' odds of experiencing poverty once they reach adulthood. This in turn increases the likelihood that they would have to send their own children into the labor market to make ends meet, thus perpetuating an intergenerational poverty-and-CL cycle (Emerson and Souza 2003:375-376, 394; Emerson and Souza 2009:114; Souza 2009:352-3). This is the Catch-22 irony of CL.

For all these reasons, CL is an exceptional issue and should be maintained as a high profile one within academia and policymaking. CL clearly "does not make long-term economic sense for a developing country" (Woolf 2002:478). Eliminating CL may seem a daunting challenge and perhaps particularly so for Brazil, "a country of continental proportions with major social and economic disparities" (de Oliveira 2009:357).<sup>21</sup> Failing to eradicate CL would, however, substantially hamper CWs' and their families' abilities to improve their quality of life and lead healthy, productive, and meaningful lives, with negative implications for the nation's prospects of achieving socio-economic development in the long run.

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**ENDNOTES**

1 Grace Abbott, American Social Reformer, 1878-1939.

2 Due to the poor availability of affordable yet quality education, poorer families may decide not to send their children to school. By sending their offspring into the labor market, parents could lessen the risks that their children end up idling in the streets and being socialized into street violence, criminal activities, substance abuse, and prostitution. Parents could even keep an eye on their children if parents and children labor in the same workplace (Inciardi and Surratt 1998).

3 A dangerous occupation is “any work or production involving pornographic material, entertainment (night clubs, pubs, casinos, circus, gambling) and street commerce” (Kassouf and Hoffmann 2006:106).

4 “The classification of countries into low, lower-middle, and upper-middle categories is based on 1997 GNP per capita figures reported in the World Development Report 1998–99” (Sedlacek et al. 2009:50).

5 The reported weekly hours worked by CWs are very likely underestimated as many CWs also have household duties. In 2008, 57.1 percent of CWs aged 5-17 also performed their household duties. Breaking this aggregate statistic down by gender, 83.2 percent of female CWs and 43.6 percent of male CWs within this age group performed both intra- and extra-household work (Instituto Brasileiro de Geografia e Estatística [IBGE] 2009).

6 In 2008, 865,000 CWs aged 5-17 worked and lived within their employers’ households. Their average per capita income per month was found to be less than a quarter of the legal minimum wage (IBGE 2009).

7 In 2008, 32.2 percent of CWs aged 5-17 were not compensated for their work. Breaking this aggregate figure into different age categories, the percentages of non-paid CWs in the 5-13, 14-15, and 16-17 age groups were 60.9, 34.0, and 19.1 percent, respectively (IBGE 2009).

8 A study conducted in low-income areas in Pelotas, Brazil reveals that out of the 451 children aged 10-17 who were economically active, 85 percent were non-registered workers, that is, they were laboring in the informal economy (Fassa et al. 2005:666-667).

9 Milla McLachlan’s (2006) evidence-based cost-benefit assessment of investing in the improvement of young malnourished children’s nutritional intake suggests that “the benefits of effective interventions to address key nutrition conditions exceed the programmatic costs by a considerable margin” (p. S42).

10 “A nation’s GDP at purchasing power parity (PPP) exchange rates is the sum value of all goods and services produced in the country valued at prices

prevailing in the United States” (Central Intelligence Agency [CIA] b).

11 The Gini index “measures the degree of inequality in the distribution of family income in a country” (CIA a). Its value ranges from zero (perfect equality) to 100 (perfect inequality). “The more unequal a country’s income distribution [is], ... the higher its Gini index” (CIA a).

12 CL may also constitute a household asset development strategy (Contreras 2008) or a state strategy to have at its disposal a sizeable pool of cheap labor to attract foreign direct investment, sustain its economy’s vitality, and remain competitive in the global market (Woolf 2002:477).

13 The magnitude of improvement in wellbeing may differ among household members according to factors such as gender, birth order, and level of intra-household power, and family size (Emerson and Souza 2002, 2007, 2008; Kruger, Berthelon, and Soares 2010; Patrinos and Psacharopoulos 1997).

14 CL’s financial contribution is non-negligible not only to poorer families’ budgets but also, arguably, to the Brazilian economy at large. In fact, econometric estimations/projections (from calculations of present- versus future-value of choosing CL over schooling) indicate that each working child aged 5-14 would, on average, contribute US PPP\$994 per annum for every year between 2005 and 2020. Accounting for the total estimated number of CWs in Brazil, this means that CL generates more than US PPP\$3.65 million per annum for the nation (Kassouf, Dorman, and Almeida 2005:354-356).

15 CL is not a cultural preference: “that a practice has cultural significance does not by definition make it one of ‘choice’ or ‘preference’—this would imply a range of viable alternatives were readily on offer” (Mayblin 2010:44). Poorer households resort to CL due to a lack of better alternatives for ensuring their basic economic survival. By trying to make the best out of a difficult situation characterized by extreme poverty and the daily struggle for survival, CL becomes over time imbued with cultural, social, and personal significance.

16 The Santa Lucian cultural view on CL is herein presented solely as an illustration of the kind of argument that could be advanced for retaining CL. This article does not make any inference on its representativeness of the general Brazilian perspective on CL.

17 For reasons of scope and limited availability of Brazilian data on the effects of CL on CWs’ psychosocial health, This article will focus its analysis on CL’s impact on physical health.

18 Some factors that could affect parents’ decisions on whether to send their offspring to school or into the labor market are (i) magnitude of returns from investing on offspring’s education (Psacharopoulos and Patrinos 2002); (ii) quality

of schools available (Hanushek and Wößmann 2007); (iii) vigor of the economy and local labor market conditions (Duryea and Arends-Kuenning 2003; Duryea, Lam, and Levison 2007); (iv) cultural norms as regards gender and housework (Emerson and Souza 2002, 2007); and (v) birth order (Emerson and Souza 2008). These are all interesting avenues for further exploration but lie beyond the scope of this paper. For reasons of space, this article will not delve into the factors shaping parental assessments of the relative benefits of education versus work. It will rather focus on the purported impact of child labor on educational outcomes.

19 Educational attainment refers to the number of years of schooling completed. Academic achievement in turn refers to the level of performance in terms of grades obtained or, put differently, the human-capital returns per year spent in school.

20 Many schools in developing countries offer poor educational quality, especially if they are publicly funded as opposed to privately owned. Parents may accordingly evaluate occupational human capital (that is, work experience) as more valuable than that generated from education (Ilahi, Orazem, and Sedlacek 2009:88).

21 Many Latin American countries have implemented Conditional Cash Transfers (CCTs) to incentivize families living in extreme poverty into enrolling their offspring in school (and ensuring their regular attendance) and/or refraining from the use of CL while providing these households with a minimum level of consumption (Tzannatos, Orazem, and Sedlacek 2009:207-208). The Brazilian government had initiated two CCT programs in 1996: the *Bolsa Escola* (see Cardoso and Souza 2009) and the *Programa de Erradicacao do Trabalho Infantil* (PETI), or Program to Eradicate Child Labor (see Yap, Sedlacek, and Orazem 2009). See also Forastieri (2002) for a comprehensive overview of strategies to address the health impact of CL (pp. 87-150).

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