

INDEPENDENT CHILD LABOR MIGRANTS*

Eric V. Edmonds and Maheshwor Shrestha

February 17, 2012

ABSTRACT

Children living and working away from home are some of the most vulnerable in society. Parents, family, friends, and home communities provide protections that reduce a child's susceptibility to abuse, exploitation, and the consequences of bad or poorly informed decisions. This chapter reviews the nascent literature on the prevalence, causes, and consequences of independent child labor migration. Measurement challenges have constrained progress on understanding this phenomenon. There is considerable scope for future research to transform how we think about issues related to the millions of children living and working away from their parents.

1 INTRODUCTION

Independent child labor migrants are working children who have migrated to their current location of employment and do not cohabit with a parent. We do not know how many children are independent child labor migrants. Yaqub (2009) tallies counts from case studies. He concludes the number of independent child labor migrants must be in the tens of millions. Gurung (2004) documents 121,000 from Nepal. Kielland (2008) identifies 100,000 from Benin. Kielland and Sanogo (2002) estimate 330,000 from

Burkina Faso. Camacho (2006) measures 400,000 in the Philippines. Independent child labor migrants can be either international or domestic migrants. We suspect that the later is more prevalent.

Independent child labor migrants are an extremely vulnerable population. They are often found in the worst forms of child labor. ILO (2003) estimates 1.8 million children in prostitution and pornography. Qualitative work with children in the commercial sexual exploitation sector typically finds that most participants started as independent child labor migrants. Edmonds and Salinger (2008) tabulate an NGO's records that document more than 5,000 child labor migrants confined to their work sites in Mumbai slums. 54 percent of these children were under 12. All lived away from their parents. Independent children are more easily abused and exploited as they may lack the information and capacity to identify dangerous conditions, exploitation, and abuse.

The purpose of this chapter is to examine the current state of research in economics on independent child labor migrants. Children may live away from their parents for a number of reasons other than child labor. In this chapter, we omit discussion of issues specific to refugees, orphans, child soldiers, and human smuggling. Friebel and Guriev discuss this last topic in detail in this volume. Instead, we focus on research where parent and child separation and child labor migration is a choice.

There are few studies that directly examine the decision that leads to the child living independently. We suspect that the paucity of research in part owes to sampling difficulties. Many independent children are in institutional settings outside the frame of traditional household surveys. Some surveys specifically sample migrant or independent children but research on the consequences of independence require a counterfactual of

what the child would be doing absent independence. Forming a counterfactual requires information from the independent child's home location in the case of a migrant child. Such matched data typically do not exist.

This chapter is structured as follows. Section 2 reviews the measurement issues salient in empirical discussions of independent child labor migration. Section 3 reviews research on why employers might prefer independent child laborers and summarizes the findings of several case studies on that topic. Section 4 considers the evidence on the factors that influence the decision for the child to live independently. Sections 3 and 4 draw extensively from Edmonds and Shrestha (2009)'s review of the implications of the child labor literature for understanding child migration. Section 5 examines the research on the consequences of child independence for child welfare. Section 6 concludes with recommendations for future research priorities.

An obvious, important initial question is whether there is anything in the economics of independent child labor migration that differentiates it from migration research in general. We do not think the literature is sufficiently well developed to answer this question. There are two obvious issues that differentiate independent child labor migration. First, children are more vulnerable to abuse and exploitation than adults. Hence, the scope of harms from independent child labor migration is broader than adult migration. Second, children may not have agency in their migration and employment situation. Hence, issues related to who is making migration and employment decisions and the information that agent possesses are more central in the discussion of independent child labor migration compared to adult migration.

2 MEASUREMENT

There are three types of survey data used to identify independent child labor migrants: specialized surveys, representative surveys using roster methods, and representative surveys using fertility methods. All have significant disadvantages for estimating the incidence of independent child labor migrants and for economic analysis of the causes or consequences of independent child labor migration.

Specialized surveys often employ opportunistic sampling to directly count contacts of independent child labor migrants in specific sectors. These data are difficult to use to create estimates of the number of independent child labor migrants because of the lack of a sample design. Specialized surveys also do not contact children outside of the targeted sector. Hence, they generally cannot be used to infer counterfactuals of what independent migrants would be doing absent migration or independence.

Representative surveys, usually household based, can be used in two ways to learn about independent child labor migrants. The *roster* method identifies children outside of parental care by responses to questions on whether the parents are present for an individual listed on the household roster. The *fertility* method asks a sampled woman about her fertility history and compares her fertility to the roster. A variant on the fertility methods asks household members about any children who are living away from the household. Typically, questions on children living away focus on children who are temporarily away. Hence, these questions on children living away can lead to a different count of children than would follow from a fertility survey.

The roster method is typically used by studies that examine independent children in the location where they live. The fertility method is useful for studying from where

independent children come. Because the roster method is based on children who have been identified in the roster, it is less subject to errors of omission than the fertility method and typically contains a large amount of information on the children. The fertility method is less subject to bias from children located outside of the sampling frame but is unlikely to produce an accurate picture of the time allocation of children living elsewhere.

Edmonds and Shrestha (2009) use the roster method to tabulate and examine the incidence of children living independently of their parents in the 32 countries covered by the 2005 / 2006 UNICEF's Multiple Indicator Cluster Survey 3 project data. The MICS3 data are representative of an estimated 160 million children. 10 percent are independent. The phenomenon of children living without any co-resident parent present is most pronounced in the Sub-Saharan African countries covered by the MICS project. More than 1 in 5 children under 17 live without a parent present in Cameroon, Cote d'Ivoire, Gambia, Guinea Bissau, Malawi, Sierra Leone, and Togo. Less than 1 in a hundred children under 17 live independently in countries such as Albania, Bosnia, Macedonia, Montenegro, and Syria. In every MICS3 country but Macedonia, girls are more apt to live away from a biological parent than boys. 59 percent of those who are independent attend school compared to 77 percent who live with a parent. 16 percent of independent children participate in paid employment compared to 14 percent of children that live with a parent.

Child independence occurs for many reasons beyond labor and marriage. When detailed data on time allocation and living arrangements are available, it is possible to estimate the prevalence of independent child laborers among the population of

independent children. Table 1 contains tabulations of the activity status of independent children using the 2002/03 Bangladesh Child Labor Survey.

In 2002/03, over a million children 5-17 in Bangladesh live without either a co-resident parent or grandparent. We exclude children living with grandparents, because we cannot identify whether the child lives with a parent present if the grandparent is present in this specific questionnaire. As is typical of most household survey rosters, we cannot identify whether the child or the parent migrated. Hence, this table (like the MICS tabulation above) is not restricted to migrant children. Less than a tenth of the resident, independent children are married. Of those who are not married, 135 thousand are economically active. Of those, agriculture is the dominant sector of employment. Boys are also substantively involved in furniture and retail trade. Girls are in textiles and furniture. Thus, in the Bangladesh example, most independent children identified with the roster method are not economically active.

Economically active, independent children are more prevalent in poor countries than in rich in the MICS data. Figure 1 contains the plot of economically active independent children against GDP per capita for the 32 countries in the MICS3 project. 10 percent means that 10 percent of children 5-17 are economically active and independent (not living with either parent). Each country is marked with circle, the size of which is proportional to the country's population of children. The prevalence of economically active independent children declines rapidly with GDP per capita and is unusual in the MICS3 countries with incomes above \$3,000 per person per year.

A comparison of roster method and fertility method calculations from within one survey illustrates that estimates of the prevalence of independent children can vary

substantively across approaches. The 2010 Nepal Living Standards Survey contains a detailed roster, a fertility survey, and a report on the activities of temporary out migrants. Hence, it can be used to contrast the roster method with two versions of the fertility method to identify independent child labor migrants. These tabulations are Table 2.

The first three rows of Table 2 are based on the roster method. The fourth and fifth rows use the fertility method to identify independent children. The first row, “Indep. Children (Roster)”, uses the roster method to identify independent children identically to Edmonds and Shrestha (2009). “Independent Migrants” defines migrants as those independent children who also migrated to their current household from somewhere else. In 2010 Nepal, 61 percent of independent children are also migrants. Independent migrants are more male, more likely to be in school, and more likely to work for pay than independent children in general. The data imply that 0.3 percent of children in Nepal independent migrants who work in paid employment.

The third row of Table 2 includes children who have migrated regardless of their co-residency with parents. Comparing row 2 and row 3 indicates that independent child migrants are more likely to be male, less likely to attend school, and more likely to work for pay than children who migrate with their parents. Most migrating children do so with their parents.

The fertility method is used to tabulate independent children in the fourth row of Table 2. The prevalence of independent children is 75 percent greater with the fertility method compared to the roster. The fertility method is not precisely comparable to the roster method as roster-based estimates of independent children condition on the children living away from the father and mother. The fertility method identifies children living

away from their mother. They may be with their father. A typical shortcoming of the fertility method is that we know nothing about their current schooling and work status.

The fifth row tabulates responses to a survey question about absent family members that the respondent expects to return. According to that instrument, nearly 12 percent of children are living away from home. We were surprised to see this above both the roster and fertility survey estimates of independent children under 18 although these children may be absent with a parent and thus not included in the independent children tabulations. We suspect that some children living away are included in the roster and that some children in the absentee responses are not biological children of mothers present. Absent children are less likely to attend school than independent migrants and more likely to work for pay. Nearly 1 in 5 absent children are abroad and completely outside the frame for a roster based method for estimating independent child labor migrants. If all absentee children are considered independent and all children abroad are assumed to be in child labor (some are students), then the fertility method from the fifth row implies that at most 2.6 percent of Nepali children are independent child labor migrants or 331,000 children.

Unfortunately, the take-away from Table 2 is not constructive. Measures of independent children and child migrants are sensitive to the approach to measurement and the conditions of those children depend on what group is identified. A thorough census is clearly an alternative that should resolve the sampling frame problems associated with the roster method and the selection problems intrinsic to the fertility survey approach (although out-of country children will be missed). To our knowledge most census questionnaires are ill suited to measure whether a child is independent or a

migrant. More research on measuring and identifying the status and conditions of independent children and child labor migrants in particular is needed for this literature to progress.

3 DEMAND FOR INDEPENDENT MIGRANT CHILD LABOR

Why do employers hire independent child labor migrants? Independent child labor migrants might be a perfect substitute for other types of child labor, their independence and migration status reflecting the spatial distribution of child labor supply and demand. Alternatively, their independence might make them less costly and easier to exploit. Their status as migrants might make them less expensive, because employers can offer services that it would be more costly for the child to acquire on their own (security, housing) and the migrant values location specific amenities. In this section we review several cases where there appears to be a concentration of independent, usually migrant, child labor in a sector. Our purpose is to review several cases in order to inform a more general discussion of why employers hire independent children.

3.1 DOMESTICS

A child domestic laborer is a child under 18 who performs domestic chores in his/her employer's household with or without remuneration. Domesticity can be boys and girls, although there is substantive sex typing of tasks. For example, studies observe male domesticity tending gardens or livestock with girls focused inside the home.

The use of children as domestic workers is a common practice in developing world, especially in South Asia (see, for example, ACPR 2006, KC et al. 2002). We are not aware of global estimates of the prevalence of child domestics, but there are several country specific estimates. For example, ACPR (2006) estimates 421,426 in Bangladesh. World Bank (2000) estimates 17,350 in Guatemala. Sharma et al (2001) estimates 21,191 in Nepal. SAYP (1999) estimates 53,942 in South Africa.

Domestics often live in their employer's house and work within the premises of the house. Child residency in their place of employment is especially common for independent child migrant domestics. Employers commonly reference the need to shelter the domestic from the dangers of urban life as a reason for confining the domestic to their worksite. Reports of physical abuse, violence and sexual abuse are not uncommon. Children report feeling 'threatened' in some ways and that they are not free to leave their current work at their will. Many countries consider domestic service a worst form of child labor.

Domestics are generally sent by their parents or relatives (see, for example, ACPR 2006). A recent study from Ethiopia documented extensive informal networks to match rural children to households in Addis Ababa (Kifle 2002). In Thailand, the ILO/IPEC Rapid Assessment (Phlainoi 2002) found that communities of origin have developed mechanisms and social networks to ensure confidence in the recruitment and conditions of their children. Sometimes agents are involved in matching children and jobs, but often relatives help place children. It is not unusual to find domestics working in the homes of distant relatives. In a study of domestics in Phnom Penh, NIS (2003) found that 60 percent of domestics reported that their employer was a relative.

In terms of motive for becoming a domestic, studies typically report that the child became a domestic at a parent's request. Sharma et al (2001) report that 82 percent of domestics in Nepal answer that the decision to become a domestic was made by their parents. When asked about motives, respondents usually mention the primacy of poverty related concerns. However, a significant proportion of child domestic labor mention the possibility of better schooling as one of the reasons for their decision to work as a domestic worker (for example KC et al 2002).

Why are children employed as domestics? The literature is unclear on this point. Domestic tasks are not ones where there is clearly a "nimble fingers" comparative advantage story for child labor. In a study in Bangladesh, ACPR (2006) reported that 80 percent of the employers of child domestic workers in Bangladesh indicated that domestics were easier to deal than adults. 13 percent reported that children were less expensive. The fact that domestics are often independent child migrants as well suggests that something about the provision of food, shelter and the employer's location in urban areas might be valuable to the person deciding to send the child work as a domestic.

3.2 MINING

Mining is another sector where independent migrant children have been documented. Mining is considered by many to be an easy way to make quick money. Most children are likely to work in informal small-scale and non-skill intensive mining rather than a large-scale mining where much of the processes are highly mechanized. Oftentimes small-scale mining sites are surrounded by a hub of temporary households full of migrants looking for jobs.

Global estimates of children in mining could not be located. In some countries the involvement of children can be substantial. An ILO (2006) study documented 200,000 children in mines in Burkina Faso. A recent Human Rights Watch (2011) report estimated that 20,000 children work in artisanal gold mines in Mali. We cannot find estimates of what share of these child labor migrants are living independent of their parents.

Children can be involved in different activities directly related to mining. Children work in above ground activities like crushing rocks, drilling rocks, washing rock dusts, collecting and carrying pieces of crushed rocks or heaps of mud or under the ground in tunnels and mine shafts. Child labor in mining is usually viewed as a worst form of child labor. Children might also be involved in other activities not related to mining. For example, they might work in restaurants, bars and shops in temporary settlements around the mining sites.

Are children in mines used differently than other types of labor? This has not been examined scientifically as far as we can identify. There are anecdotes that children benefit from their smaller frames and lack of awareness of risks. For many tasks, independent children are likely just another type of labor that's available to mines. However, it seems plausible that independent children might be more easily induced into dangerous tasks that parents would not permit.

3.3 AGRICULTURE

Agriculture is the largest employer in low income countries. Most estimates suggest that agriculture is the largest employer of independent child labor, but there is little

evidence that this is for any reason other than agriculture is the largest employer of all types of labor. In our tabulations from Bangladesh in Table 1, we found that 44 percent of economically active independent children work in agriculture.

Based on the case study literature, evidence exists of migrant child labor in sugarcane, cocoa, and cottonseed. At the time of writing, there is a scandal involving the use of migrant child labor in cotton farms in Burkina Faso that source cotton for Victoria's Secret products. Sugarcane, cocoa, and cottonseed are prevalent in the sector studies, because plantation production will often require a seasonal, migrant population for harvesting. It is natural that migrant child labor will be drawn into migrant farm labor in general.

Estimates of the volume of migrant child labor can be very large in agriculture. Venkateswarlu (2007) reports that 416,460 migrant children work in hybrid cottonseed farms in India. ILO (2003) estimates as many as 240,000 migrant child laborers in seasonal cotton harvesting in Turkey. Few studies document how many of these child laborers are migrant. Davalos (2002) found that 18 percent of boys and 5 percent of girls were independent migrants in sugarcane farms in two districts of Bolivia.

It is not unusual for seasonal agriculture labor to be managed by middlemen who help bring together labor and employers. Both the India and Turkey study document reliance on middleman. An IITA (2002) study of cocoa farms in Cote d'Ivoire documented that 41 percent of child labor found their job using an intermediary. Stories of deceptive recruitment permeate the case study literature. Albertine de Lange (2006) reports on the types of deceptions used by recruiters to draw independent children to cotton farms in Burkina Faso.

While children might be easier to recruit, especially in ways that allow recruiters to capture significant rents, it does not appear to be the case that independent children work in significantly different tasks.

3.4 HANDCRAFTS SUCH AS HANDMADE CARPETS

Carpet production is associated with migrant child labor in South Asia, especially in Nepal and India. An ILO/IPEC Rapid Assessment in the Nepalese carpet sector (KC et al, 2002) estimated that 7,689 children worked in the sector and that 96 percent were migrants. The rapid assessment did not separately identify independent child migrants, but given the low average age of workers in the sector reported in the rapid assessment, it is plausible to assume that independence was prevalent in the project.

In handmade carpets as well as many handcrafts, one often hears that there is a value for little fingers. While the “nimble fingers” story for child labor is not as compelling as popularly believed (Edmonds 2007 has a discussion), it may be the case that employers of migrant children are able to work them in conditions that would not be feasible with an adult. While we are not aware of any formal studies that meet modern standards of evidence, there are many anecdotes in the press of employers working children in tasks where small fingers might be at a comparative advantage in conditions that adults would not tolerate. It is unclear how systematic or widespread this is.

3.5 STREET CHILDREN, BEGGERS, AND RAGPICKERS

Street children are children under 18 that are living in the streets and detached from their families. They usually have no fixed place to stay and are highly mobile. Giani

(2006) describes them as ‘run away’ children who migrate to the streets because they feel emotionally, physically and sexually vulnerable at home. There are two broad definitions of street children in the studies below: those who are on the street during the day but return home to sleep at night and those who work and sleep on the streets. Children in the latter category can be considered as independent children. Even when these children originate from the same locality as the streets they inhabit, they have moved out of their homes without their parents or adult guardians.

Street children often do petty jobs available in the streets. Those mostly include street hawking, begging, ragpicking, selling goods, and so forth. Since street children do not have a particular job, the use of recruiting networks is absent for migration to street. On the other hand, children who have migrated with false hopes and promises to work in various other sectors might often end up in the streets.

Estimates of the prevalence of street children, beggars, and ragpickers vary wildly. Given the low barriers to entry into the job, it is possible that the number of independent children in these activities vary substantively from season to season and year to year. The Bangladesh Bureau of Statistics conducted a quick count survey and estimated about 2,500 street children in Bangladesh (FREPD 2003). Most (58 percent) of these children have very weak links with their parents. The street children’s survey in Ghana (Ghana Statistical Service 2003) identified 2,314 street children under the age of 17. Most of them (53.2 percent) lived outside their parents’ district of residence, and some had traveled considerable distances to become street children. In most countries, boys are more likely to be street children than girls.

The question of why employers use children as ragpickers is difficult as it is not known what fraction of ragpickers and street children are employed by a third party or are self-employed. Given the extremely low costs to entering the industry, it seems likely that much of the work that beggars and ragpickers do should be motivated by the labor supply concerns discussed below. One hears anecdotes of organized crime creating non-market barriers to entry for beggars and ragpickers, but it is not clear how widespread these anecdotes really are.

3.6 SUMMARY

We know very little about why employers might prefer independent child migrants. The popular press and some rapid assessment work document stories built around the idea that children are easier to exploit. There are competing explanations. In the case of domestics, there is some evidence that employers can provide amenities and in-kind services that are of value to independent child migrants at lower costs than the migrant could provide on their own. In mining and handcrafts, there is some evidence that children might have an advantage in some types of tasks although that evidence is far from conclusive. Children might also have an advantage in ragpicking and begging. In all of these types of child labor that employ independent child migrants, it is possible that independent child labor migrants are not distinct from other forms of child labor. This seems most likely to be the case with agriculture where there is less evidence of physical segmentation of migrant labor from non-migrant labor.

4 ENTRY INTO INDEPENDENCE

We focus our discussion on whether a single child is sent away by a one agent. The agent is able to control the child's activity at home and to decide what the child will do if the child is sent away. The agent's problem is to maximize household welfare, and the agent chooses the combination of activity and location that does so. Because the agent decides location and activity simultaneously, it is not possible to predict the next best activity to the one the child is observed in. For example, suppose a child stays home and works in a slaughterhouse. If the slaughterhouse activity is removed from the agent's choice set, the agent could be best off moving the child to a different job with away from home. When a child participates in multiple activities in a given location, the agent's payoff must be equalized across activities.

The agent's payoff to having a child participate in a given activity at some location depends on the marginal utility of income, the effect of participating in the activity on agent's income, and relative prices. Thus, factors that influence the child labor decision then influence the decision to migrate. Anything that improves the economic return to keeping the child at home will increase the likelihood the child stays. Anything that raises the net economic return to leaving will lead to more independent child migrants. Edmonds (2007) is a dedicated review of the child labor literature. In what follows, we highlight some of the findings from that literature that have specific relevance to the context of child labor migrants.

4.1 POVERTY MOTIVES

There is broad statistical support for the qualitative evidence that links work and living standards. Two-thirds of the cross-country variation in economic activity rates can be explained by differences in gross domestic product per capita (Edmonds 2010a). Causal evidence comes from many sources including Edmonds and Schady (2012) who document substantial declines in paid employment in reaction to a randomized cash transfer valued at 20 percent of foregone earnings.

Rigorous statistical studies on the independent child labor migration – poverty connection are rare. The narrative evidence from working, independent child migrants appears to put a lot of emphasis on poverty at home as a motive for migration. Roe's (1999) study of street children in Bangladesh is an excellent example. They report that migration to the street improves their access to income, food, clothing and other necessities that their parents cannot adequately provide. Sheikh Hasina's (1989) discussion of street children in Bangladesh emphasizes that in addition to supporting themselves, there is hope that the child will contribute financially to their home family's welfare as well. Sometimes this contribution comes simply by relieving their family of the need to care for the child. Other times, the support comes from remittances or advanced payments on the child's earnings. See the chapter by Antman in this volume for further discussion of how migrants might support their sending families.

The link between child independent migration and poverty is a bit subtler than some case studies emphasize. For example, Kielland and Sanogo (2002) study Burkinabe children and argue that poverty is a weaker determinant of migration than one would expect from studies that focus on the responses of child migrants. They observe that the

challenge of meeting basic needs is more influential for girl migration than boys and that poverty seems more influential in rural to urban migration than in rural to rural migration. In a study from the Indian states of Bihar and Uttar Pradesh, Edmonds and Salinger (2008) observe that child independent migration is more likely from poorer households but in remote locations poverty factor plays lesser role. Their explanation is that the costs of migration become a larger influence on migration decisions in more remote areas of India.

Djebbari and Mayrand (2011) are a rare, direct study of the relationship between income and child migration. They find that the child support grant in KwaZulu-Natal reduces the prevalence of child independence. The grant is only available if the parent is present, so it is somewhat complicated to interpret whether the impact of the grant is through the impact of income or the relative cost of child-parent separation. However, income issues could be extremely important and it is not obvious whether income itself would lead to more or less child independence in this case where families may have difficulty affording to migrate.

The credit – migration connection is similarly complex. Although credit constraints force families to make child labor and schooling decision based on immediate concerns, improved incomes and access to credit do not necessarily ameliorate child labor or reduce child migration. Migration is costly, and Edmonds and Salinger (2008) emphasize that wealthier households will be better able to afford to migrate. Kielland and Sanogo (2002) explicitly emphasize this in their discussion of child migration in rural Burkina. Many families cite an inability to finance migration as a major barrier to migration. This point is salient in the analytical framework of Figure 2. At times, child independent migration for

work might be perceived as the best option available to the child. Migration is costly. Sometimes, poverty might limit a child's ability to migrate.

Edmonds, Mammen and Miller (2005) document the diverse and complicated relationship between income and the migration of children, young adults, and others. They look at how household composition responds to eligibility for the Old Age Pension in South Africa. They find evidence of some household members moving away from the income and others moving into the money. Migration becomes less costly with the transfer so individuals with large returns to migrating can do so. But, the return to moving in with the elder pensioner may increase the return to migrating towards the pensioner. The relative import of such influences varies across the population.

4.2 INSURANCE FAILURES

Children may migrate both as a way to diversify risk that would maximize the net expected return to migrate or to cope with a realized shock that either lowers income or reduces the net expected return to staying home. Migration serves as a way to cope with shocks and crises. Migration of household members and remittances from migrants help families cope with difficult times regardless of whether the origins of the difficulties rest with financial crises (Yang 2008), productivity shocks and natural disasters (Halliday 2008), or weather shocks (Rosenzweig and Stark 1989).

Akresh (2009) is rare evidence of a link between economic shocks and child out migration. In data from rural Burkina Faso, Akresh finds that household agricultural shocks induce families to send children away through fostering networks.

Health shocks can also induce migration. Sometimes that migration will be away from the shock. Edmonds (2010b) for example finds that paternal disability is a strong predictor of entry into ragpicking in Nepal. Other times, health shocks might induce migration towards the shock in order to provide care. Young and Ansell (2003) document the migration of Southern African children to households with a sick member to provide care.

One consequence of an economic shock in the context of credit constraints is that it may create a short-term liquidity crisis that has substantial implications for child migrants. Srivastava (2005) for example documents that bonded laborers in India are often bonded, because their parents received an advance on their labor in exchange for migration and the job. It is difficult to know how widespread this phenomena is, but it implies that short term needs for medicine, seeds, or fertilizer, may induce families to choose to send children away into bonded labor settings.

4.3 SENDING AREA OPPORTUNITIES

Children are more likely to work when the relative return to work is higher. Children will be drawn into migrating for that work if the returns in receiving labor markets are high relative to the opportunities at home and the costs of migrating. This section focuses on evidence on the influence of sending area employment opportunities.

Most children work inside their home. The availability of productive assets can thus be an important influence on whether children work (e.g. Mueller 1984). Generally, it appears that children migrate more from households with fewer productive assets. Young (2002) characterizes the migration of rural Bolivian youths to urban areas or abroad to

Argentina as a strategy to cope with lack of access to land and limited economic opportunities. Ford and Hosegood (2005), in their study of child migration from a rural district of a province in South Africa, also find that children in households with more assets are less likely to migrate. On the other hand, Edmonds and Salinger (2008) and Iverson (2002) find little clear association between household working capital (household farm ownership) and child migration. One explanation for their finding is that the potential returns to time spent in household based activities are small relative to the anticipated returns to migrating.

When children work outside of their home in sending areas, opportunities outside the home in sending areas should deter migration in the same way that household based opportunities might be expected to. Child migration studies and reports mention the lack of employment opportunities and lower wages in origins as one of the main reasons for child migration for work. Punch's (2002) study of youth migration in rural Bolivia, and Erulkar et al's (2006) study of adolescents in slum areas of Addis Ababa are but a few examples of such studies. The challenge in these analyses is that more remote areas often have fewer employment opportunities, but they are also more expensive to migrate from. Kielland's (2008) study of child migrants in Benin overcomes this problem by looking at differential employment opportunities by gender in same localities. She observes that agriculturally intensive localities leave girls with fewer independent opportunities than for boys and hence female migration is larger than male migration from those places. Her findings are consistent with the view that boys and girls have similar employment opportunities in destination areas. We might see no such patterns in countries where girls have few employment opportunities in destination areas as well.

The relationship between seasonal patterns of labor demand and child migration is complicated because there is seasonal variation in employment opportunities as well as incomes. Households that depend highly on income from agricultural labor would also face seasonality in household income. When agricultural labor demand is low, households will suffer from lower income. This situation is aggravated by lack of credit markets. To cope with this seasonality of income variation, family members, including children are likely to migrate temporarily in search of work opportunities during lower labor demand periods, assuming that higher labor demand areas are accessible. They often return to their origins during harvest or sowing times to help their families as labor demand in origin areas tend to be high. Giani (2006), and Baas (2008) are but a few studies to document the increase in child migration in lean season and their return during harvest times. Quiroz (2008) further documents that entire families, including children, migrate to the coffee plantations in Guatemala for seasonal work. Seasonal migration is not limited to farm work - Bastia (2005) also finds seasonal migration to be customary in urban-rural migration of Bolivian migrants.

Schooling must be an important component of the return to time in the sending area. When schools are far or unavailable, children have less alternative uses of their time. Typically, children either migrate to other places with educational opportunities (most relevant for boys) or work. The effect of school access on child migration is, however, not well documented. One exception is from Kielland and Sanogo's study of child migration in Burkina. They observe no effect of presence of a primary school in the village on child labor migration overall. However, they find that presence of a primary

school in the village reduces girls overall labor migration (within and outside the country) and also reduces child migration to work as a domestic.

If schooling is available but of low quality, it may induce migration in the same way that a lack of access does. Giani (2006) studies rural-urban migration of children who have moved to Dhaka from various parts of rural Bangladesh through case studies and child interviews. She finds that migrant children take migration as an alternative to poor schooling at their origins. She argues that poor quality of schooling, coupled with poor performance, lack of interest and abusive behavior from teachers trigger child migration to urban centers.

4.4 DESTINATION EMPLOYMENT OPPORTUNITIES

Higher wages and therefore income lures many children to migrate to work in urban areas and abroad. Several case studies and interviews with child migrant labor document higher expected wages in urban centers and more employment opportunities in cities as one of the main reasons for child migration. Punch's (2002) study of youth migration in rural Bolivia, and the Erulkar et al. (2006) study of adolescents in slum areas of Addis Ababa are but a few examples of such studies. While evidence of an urban wage premium is widely documented for adults, we do not know of similar evidence for children.

It is not clear if migrant children achieve higher wages than their counterfactual if they had stayed home. However it is clear that hope for higher wages and a brighter future is important in the decision to leave home. Bastia (2005) documents the use of lies

and deceit by recruiters to rural Bolivian children in order to persuade them to migrate to urban centers or to Argentina. Pearson (2006) also documents that children often migrate to urban Thailand in hopes of better jobs but often end up with worse jobs than in their origins. For further discussion in the context of migration in general, see the discussion by Constant and Zimmermann in this volume.

Traineeships and apprenticeships are two formalized institutions for children to migrate in hope of a better life. Kok (1997) examines historic youth migration in the Netherlands. She observes that in cities, children whose fathers were skilled workers were most prone to migrate. She argues that these parents had necessary contacts, information, and some money to find useful and interesting jobs or apprenticeships in another town. Kok observes similar patterns amongst merchant and elite families.

Empirical evidence on the impact of transport and search costs on migration varies based on whether researchers control for other correlates of remoteness. Edmonds and Salinger (2008) for example control for individual family living standards and local employment opportunities in areas of migrant origin in Bihar and Uttar Pradesh. With these controls, they observe that more remote communities are less likely to have children away. This finding that migrants are less likely to come from more remote locations, everything else equal, is consistent with the large historical literature on the migration of Americans out of the South at the start of the twentieth century.

Additional costs come into play when one considers international migration. Legal forms of cross-border migration often require lengthy bureaucratic processes and are often costly. McKenzie (2005) finds that countries with high passport costs, indicative of poor bureaucracy, have lower migration rates. Sending a child legally across borders then

could turn out to be prohibitively expensive in poor, developing country context. Child migration, then, could take in the form of illegal migration across borders. These illegal children are most likely to be trafficked and likely to be working under exploitative situation. Lending support to this hypothesis, Caouette (2001) finds that there are a significant proportions of undocumented women and children as young as 13 along the borders of China, Myanmar and Thailand. Those children and migrants, she posits, are likely to suffer from extensive debt-bondage, arrests and extortions, forced labor, and poor living arrangements.

4.5 INFORMATION

Migration is a selective process. Individuals rarely migrate without having some form of network already present in the destination. Social network in destination can be an important factor because of several reasons. First and foremost, a possible migrant gets detailed information about the conditions at the destinations through his social network. This information is usually more valuable to the migrant than those available through media or otherwise. Secondly, a migrant gets more support in the destination after he migrates which makes his transition to his destination easier. Therefore, the propensity of migration of an individual to a particular destination depends upon migration experience of his social network on that destination.

Empirical studies support the idea that existing social networks in destination promotes migration. McKenzie and Rapoport (2007), in their study of international migration from Mexico, find that migration networks increases the likelihood of migration by spreading the benefits to poor members of the network. Similarly, Curran,

Garip and Chung (2004) also find that migration experience in a destination increases the propensity of migration to that destination significantly in Thailand. They also observe that female migration experience at a destination has a stronger impact than male migration experience in all (individuals, household, community) levels of observations.

Networks are not just important for migrants to find work, it is also important for employers to find employees. Employers use their own network through middlemen, recruiters, relatives, friends, and previous employers to find workers.

Rigorous empirical evidence on how employers use networks to identify and recruit workers does not appear to exist. However, various reports of sector studies reveal that employers use their network or hire recruiters in order to find workers, including children. We will review the use of employers' network under recruiting sections when we discuss the sectors in which child independent migrants are most likely.

4.7 SIBLING INTERACTIONS

Sibling interactions arise in discussions of independent child migration with great frequency. Siblings influence the marginal utility of income, the return to providing services to the household, and the relative cost of different types of spending and investment in the household. Parish and Willis (1993) find that, more important than the caring and support she provides to her siblings, the biggest contribution of the eldest daughter comes through marriage and out migration from the family. Their finding in Taiwan is consistent with Vogl's (2011) finding in contemporary Nepal and India. Sibling composition, especially birth order and spacing, can have an important role to play in child migration decision beyond their influence on marriage. Edmonds and

Salinger (2008) observe that migrant children tend to be older amongst siblings. Punch (2002) also notes that older siblings are much more likely to migrate at a young age compared to their siblings. Conditional on an elder sibling away from home, parents will likely keep younger siblings at home until they reach an appropriate age. However, a very young sibling at home reduces the propensity to migrate, as the older sibling is likely to assume an important care-taking role. Her study nicely illustrates that the relationship between siblings and migration is complex and will vary with sibling cohort characteristics.

4.8 AGENCY

Conventional wisdom suggests that parents decide whether a child should migrate to work or not. Many reports on studies of domestics report that children are rarely consulted before they were sent to work indicating no autonomy (for example Brown, 2007). However, studies of street children show a great extent of child autonomy (for example Giani 2006 Conticini 2004). In one of very few studies that focus on the autonomy of general child migration, Iverson (2002) finds autonomous behaviors amongst migrant children in his study in rural South India. Boys outnumber girls and exhibit greater autonomy. His finding is consistent with Keilland and Sanogo's (2002) observations that girls migrate with their families and boys migrate with friends and other relatives in rural Burkina Faso. Iverson finds that older children and children from higher caste families exhibit greater autonomy compared to other migrants. He also finds that peer group autonomy greatly enhances a child's migration decision whereas household wealth and household social network does not.

Child abuse and neglect also cause children to behave autonomously and ‘run away’ from their homes. In her study of children living in the streets of Bangladesh, Giani (2006) argues that abuse and neglect are primary reasons for children living in the streets. Similarly, Conticini and Hulme (2007) argue that children move out to streets because of excessive control and abuse at home and of gradual breakdown of trust within the households. They emphasize the role of poverty in increasing stress and tension within the households.

This discussion of the causes of demand for agency among children is a nice illustration of how important multiple factors can be in the decision to migrate. No single factor can be the cause of a child’s migration and work status, because a child’s status depends on its payoff relative to all of the other possible solutions to the child’s problem. With a wide variety of causes, there is then a wide variety of influences and policies that might impact a child’s migration status.

5 THE IMPACT OF INDEPENDENCE

There is little evidence on the impact of child independence outside of the literature on orphans. The generalizability of evidence from orphans to the topic of this chapter is suspect. The loss of both parents is a trauma whose impact may differ substantively from the consequences of independence. We are not aware of any scientific study that identifies the impact of independent migrant child labor. The problem in this literature is that identifying the impact of being an independent child migrant requires establishing the counterfactual of what the child would be doing absent independence and migration. Identifying this counterfactual requires knowledge of the child in her destination and at

her source area in addition to quasi-random variation in entry to independence. The related research on the impact of independence that we could identify comes from the fostering literature.

Fostering is typically mentioned in the Sub-Saharan Africa context where children move between connected households for work, support, and schooling. Akresh (2008) examines the impact of child fostering on school enrollment. At the core of his study is an impressive data collection effort that matched fostered children in their destination to their source families. Akresh compares fostered children to non-fostered children in the same location as well as fostered children to their biological siblings residing elsewhere. Akresh documents that after fostering, young fostered children are more likely to be in school than either their hosts or siblings. Fostered children themselves are less likely to be enrolled in school, but once they are fostered, their schooling increases substantively for children 5-7. The opposite appears true for children 12-15, who attend school less after being fostered as well as before fostering. Thus, for at least the youngest children in Burkina, fostering seems to be important in helping them enroll in school.

While no other studies that we know of can compare fostered children to their hosts and siblings elsewhere, there are several cross-sectional studies that document that fostered children receive schooling. Zimmerman (2003) for example documents that fostered children in South Africa are more likely to attend school. Similar evidence is in Beck et al (2011) for Senegal although they point out that there is enormous heterogeneity in fostering situations. The original models of fostering from Ainsworth (1996) focused on child labor demand as a determinant of the decision to foster in and Akresh (2009) documents poverty motives for sending children. Beck et al emphasize

that some children are fostered for work, some for school, some to protect the child's food in-take, and these different motives will have different implications for the impact of fostering. Serra (2009) formalizes these ideas in a theoretical model of fostering with heterogeneous treatment effects.

Even with heterogeneous impacts of fostering, it is feasible to estimate the average consequences of fostering. Coppoletta et al (2011) consider the long-run consequences of fostering in Senegal by looking at the adult outcomes of individuals fostered in their youth. They rely on self-reports about whether an adult was fostered in youth. The authors note that there are substantive swings in the prevalence of fostering across cohorts and years. They argue that these large fluctuations in fostering rates imply that the unobserved characteristics associated with selection into fostering should average out across cohorts and years. It appears that men who were fostered in their youth wind up with better education, job market outcomes and earlier marriage than men who were not fostered. The long-term consequences of fostering on average are less clear for women in Senegal. They posit that women fostered in traditional ways marry early and are more apt to be in a polygamous union. Less traditional cases of fostering may be associated with better education and reduced polygamy although more research is necessary to understand selection into different types of fostering relationships.

The ability to send and receive child labor between households may also reduce distortions in human capital decisions. Akresh and Edmonds (2011) argue that sibling influences on time allocation stem from labor market imperfections that families can overcome if fostering allows households to move child labor between residences. In the study's rural Burkina Faso setting, households are more comfortable sending children

away when households can send or receive children within fostering networks. Thus, the availability of fostering networks determines the ability of households to adjust composition. When households can import and export child labor, the value of child labor in the fostering network determines the opportunity costs of schooling. When households are constrained to use the labor on-hand because of the opposite of fostering opportunities, Akresh and Edmonds find household composition influences school enrollment. Thus, the ability to move children between families can moderate the impact of sibling composition on human capital accumulation.

There are good reasons why the evidence from fostering might extend to some types of independent child migration, including that associated with worst forms of child labor. However, there are many reasons why fostering might be different than many types of child independence as there is explicitly an agent responsible for the child's welfare in fostering exchanges. That sense of responsibility might be important and could differentiate fostering exchanges that are for child labor from the typical domestic servant relationship.

In the end, we are left with very little sense about the consequences of independent child labor migration. Anecdotes of child abuse and exploitation raise reasons for concern, but scientific evidence about the scope and scale of such abuse compared to the counterfactual for the child does not exist. Even the fostering studies suffer from concerns about self-selection and problems of omitted variables. Perhaps the best hope for stronger evidence on the impacts of child independence come from future, yet to be conducted field experiments, where the treatment effects come from the treatment's impact on child out-migration.

6 CONCLUSION

The literature on independent child labor migrants is in its infancy. This chapter documents major research needs in measurement, causes, and consequences of independent child labor migration.

Studies of the prevalence of independent child labor migration typically use a roster method that identifies independent children by their current location. The roster method suffers from a lack of knowledge of what the child's environment was before coming to its current location. Studies of the prevalence of independent children also sometimes use a fertility survey method that asks adult women or other household members about their children and compares the stated fertility history against the roster list of who is present. This fertility method suffers from a lack of information on the absent child's current environment. Dedicated questions about out-migrant children should be included in multi-purpose surveys to help future research.

We do not know whether employers view migrant child laborers differently from other child laborers. Migrant child laborers may be easier to control, manipulate, and exploit, but they also might value amenities that the employer can offer by virtue of his location or industry. In some of the most common forms of migrant child labor such as in agriculture, we found very little evidence to suggest that employers view migrant child laborers differently than any other type of child labor.

Children become independent for a variety of reasons, and the literature strongly emphasizes that it is unrealistic to expect one cause of independence or to expect the cause to be consistent across space and time. Based on anecdotes from the field, it seems

like poverty and economic opportunities are two issues that must be central in any discussion of why children become independent child labor migrants.

Few studies consider the consequences of independence because of the data demands required to establish the counterfactual of what children would be doing absent independence or migration. The best evidence that exists on this topic comes from fostering studies that seem to establish some benefit to fostered children from fostering. This general finding differs starkly from press accounts of horrific working conditions and abuse of child labor migrants and independent children. Understanding the relationship between the circumstances of migration and the consequences of those migrations seems a priority for formulating and improving policy aimed at helping independent child migrants.

7 WORKS CITED

ACPR (Associates for Community and Population Research) (2006), 'Baseline survey on child domestic labour in Bangladesh', International Labour Office, Dhaka, Bangladesh, available at:
<http://www.ilo.org/ipecinfo/product/download.do?type=document&id=4647>.

Ainsworth, Martha (1996) "Economic Aspects of Child Fostering in Cote d'Ivoire." In T. Paul Schultz, ed., *Research in Population Economics*, Volume 8. Greenwich: JAI Press, pp. 25-62

Akresh, Richard (2008), 'School enrollment impacts of non-traditional household structures', BREAD Working Paper 89, Bureau for Research and Economic Analysis of Development, Cambridge, MA.

- Akresh, Richard (2009), 'Flexibility in household structure: child fostering decisions in Burkina Faso', *Journal of Human Resources*, 44(4), 976-97.
- Akresh, Richard and Eric Edmonds (2011), 'Residential rivalry and constraints on the availability of child labor', NBER Working Paper 17165, National Bureau of Economic Research, Cambridge, MA.
- Baas, Laura (2008), 'Child labour in the sugarcane harvest in Bolivia', The IREWOC Research Project on the Worst Forms of Child Labour in Latin America, International Research on Working Children, Amsterdam, Netherlands.
- Beck, Simon, Philippe de Vreyer, Sylvie Lambert, Karine Marazyan and Alba Safir (2011), 'Child fostering in Senegal', mimeo, Paris School of Economics.
- Caouette, Therese M. (2001), 'Small dreams beyond reach: the lives of migrant children and youth along the borders of China, Myanmar and Thailand', Department for International Development and Save the Children Fund, UK.
- Conticini, Alessandro and David Hulme (2007), 'Escaping violence, seeking freedom: why children in Bangladesh migrate to the street', Working Paper 47, Global Poverty Research Group, Manchester University, Manchester, UK.
- Coppoletta, Rosalinda, Philippe de Vreyer, Sylvie Lambert and Alba Safir (2011), 'The long-term impact of child fostering in Senegal: adults fostered in their childhood', mimeo, Paris School of Economics.
- Dávalos, Guillermo (2002), 'Bolivia: child labour in sugarcane: a rapid assessment', International Labour Office International Programme on the Elimination of Child Labour, Geneva, Switzerland.

- de Lange, Albertine (2006), 'Going to Kompienga: a study on child labour migration and trafficking in Burkina Faso's south-eastern cotton sector', International Research on Working Children, Amsterdam, Netherlands.
- Djebbari, Habiba and Helene Mayrand (2011), 'Cash transfers and children's living arrangements in South Africa', mimeo, Laval University, Quebec City, Canada.
- Edmonds, Eric (2007), 'Child Labor,' in T.P. Shultz and J. Strauss, eds., *Handbook of Development Economics: Volume 4*, Elsevier Science, Amsterdam North Holland, pp 3607-3710.
- Edmonds, Eric (2010a), 'Trade, Child Labor, and Schooling in Poor Countries,' in G. Porto and B. Hoekman, eds., *Trade Adjustment Costs in Developing Countries: Impacts, Determinants, and Policy Responses*, The World Bank Press, pp. 179-196.
- Edmonds, Eric (2010b), 'Selection into Worst Forms of Child Labor,' *Research in Labor Economics* 31: 1-33.
- Edmonds, Eric, Doug Miller, and Kristin Mammen (2005), 'Rearranging the Family? Household Composition Responses to Large Pension Receipts,' *Journal of Human Resources* 40(1), 186-207.
- Edmonds, Eric and Philip Salinger (2008), 'Economic influences on child migration decisions: evidence from Bihar and Uttar Pradesh', *Indian Growth and Development Review*, 1(1), 32-56.
- Edmonds, Eric and Norbert Schady (2012), 'Poverty alleviation and child labor', *American Economic Journal: Economic Policy*, forthcoming.

- Edmonds, Eric and Maheshwor Shrestha (2009), 'Children's Work and Independent Child Migration,' *Innocenti Working Paper* No. 2009-19. Florence, UNICEF Innocenti Research Centre.
- Erulkar, Annabel, Tekle-Ab Mekbib, Negussie Simie and Tsehai Gulema (2006), 'Migration and vulnerability among adolescents in slum areas of Addis Ababa, Ethiopia', *Journal of Youth Studies*, 9(3), 361-74.
- Ford, Kathleen and Victoria Hosegood (2005), 'AIDS mortality and the mobility of children in KwaZulu Natal, South Africa', *Demography*, 42(4), 757-68.
- FREPD (Foundation for Research on Educational Planning and Development) (2003), 'A Baseline Survey of Street Children in Bangladesh', Bangladesh Bureau of Statistics, Planning Division, Ministry of Planning, Government of the People's Republic of Bangladesh, Parishaynkhan Bhawan, Agargaon, Bangladesh, available at: <http://www.ilo.org/ipeinfo/product/download.do?type=document&id=287>.
- Ghana Statistical Service (2003), 'Ghana Child Labour Survey', Accra, Ghana, available at: <http://www.ilo.org/ipeinfo/product/download.do?type=document&id=690>.
- Giani, Laura (2006), 'Migration and education: child migrants in Bangladesh', Sussex Migration Working Paper 33, University of Sussex, Brighton, United Kingdom, available at: <http://www.sussex.ac.uk/migration/documents/mwp33.pdf>.
- Gultiano, Soccoro, and Peter Xenos (2004), 'Age structure and urban migration of youth in the Philippines', CICRED'S Seminar, Paris, France, available at: <http://www.cicred.org/Eng/Seminars/Details/Seminars/Popwaves/PopwavesGultiano.pdf>.

- Gurung, Yogendra Bahadur (2004), 'Nature, Extent and Forms of Child Labour in Nepal,' *Nepal Population Journal* 11(10).
- Halliday, Timothy J. (2008), 'Migration, risk and the intra-household allocation of labor in El Salvador', IZA Discussion Paper 3322, Institute for the Study of Labor, Bonn.
- Hasina, Sheikh (1989), *Ora Tokai Keno*, Dhaka: United Nations Children's Fund.
- Human Rights Watch (2011), 'A poisonous mix: child labor, mercury, and artisanal gold mining in Mali', USA.
- IITA (International Institute of Tropical Agriculture) (2002), 'Child labour in the cocoa sector of West Africa', Sustainable Tree Crops Program, available at: www.globalexchange.org/sites/default/files/IITACocoaResearch.pdf.
- International Labor Office (2003), *Facts on Commercial Sexual Exploitation of Children*. Geneva: International Labor Office International Programme on the Elimination of Child Labor.
- Iversen, Vegard (2002), 'Autonomy in child labor migrants', *World Development*, 30(5), 817-34.
- KC, Bal Kumar, G. Subedi, Y.B. Gurung and K.P. Adhikari (2002), 'Child labour in the Nepalese carpet sector: a rapid assessment', International Labour Office International Programme on the Elimination of Child Labour, Kathmandu, Nepal.
- Kielland, Anne (2008), 'Child labor migration in Benin', VDM Verlag, Germany.
- Kielland, Anne and Ibrahim Sanogo (2002), 'Burkina Faso: child labor migration from rural areas: the magnitude and the determinants', World Bank, Washington, DC, available at: http://home.online.no/~annekie/Africa_docs/BFEnglish.pdf

Kifle, Abiy (2002), Ethiopia: child domestic workers in Addis Ababa: a rapid assessment, International Labour Office International Programme on the Elimination of Child Labour, Geneva, Switzerland.

Kok, Jan (1997), 'Youth labour migration and its family setting, the Netherlands 1850-1940', *The History of the Family*, 2(4), 507-26.

McKenzie, David (2005), 'Paper walls are easier to tear down: passport costs and legal barriers to emigration', World Bank Policy Research Working Paper 3783, World Bank, Washington, DC.

McKenzie, David and Hillel Rapoport (2007), 'Network effects and the dynamics of migration and inequality: theory and evidence from Mexico', *Journal of Development Economics*, 84(1), 1-24.

Mueller, Eva (1984), 'The value and allocation of time in rural Botswana,' *Journal of Development Economics* 15: 329-360.

National Institute of Statistics (NIS) (2004), 'Child domestic workers survey in Phnom Penh, Online', Ministry of Planning, Cambodia.

Parish, William and Robert Willis (1993), 'Daughters, Education, and Family Budgets: Taiwan Experiences.' *Journal of Human Resources*, 28(4): 863-898.

Phlainoi, Nawarat (2002), 'Thailand: child domestic workers: a rapid assessment', International Labour Office International Programme on the Elimination of Child Labour, Geneva, Switzerland.

Punch, Samantha (2002), 'Youth transitions and interdependent adult-child relations in rural Bolivia', *Journal of Rural Studies*, 18(2), 123-33.

- Roe, Emery (1999), *Except Africa: remaking development, rethinking power*, New Brunswick, NJ: London Transaction Publishers.
- Rosenzweig, Mark R. and Oded Stark (1989), 'Consumption smoothing, migration, and marriage: evidence from rural India', *Journal of Political Economy*, 97(4), 905-26.
- Serra, Renata (2009), 'Child fostering in Africa: when labor and schooling motives may coexist', *Journal of Development Economics*, 88, 157-70.
- Sharma, Shiva, M. Thakurathi, K. Sapkota, B. Devkota and B. Rimal (2001), 'Nepal: situation of domestic child labourers in Kathmandu: a rapid assessment', International Labour Office International Programme on the Elimination of Child Labour, Geneva, Switzerland.
- Srivastava, Ravi S. (2005), 'Bonded labor in India: its incidence and patterns', Working Paper 43, International Labour Office, Geneva, Switzerland.
- Statistics South Africa (2001), Survey of Activities of Young People in South Africa 1999: Country Report on Children's Work-Related Activities, Pretoria, South Africa, available at: <http://www.ilo.org/ipeinfo/product/viewProduct.do?productId=5013>.
- van de Glind, Hans (2010), *Migration and Child Labor – Exploring child migrant vulnerabilities and those of children left-behind*. Geneva: International Labor Office International Programme on the Elimination of Child Labor.
- Venkateswarlu, Davuluri (2007), 'Child bondage continues in Indian cotton supply chain', Global Research and Consultancy Services, Hyderabad.
- Vogl, Tom (2011), 'Sisters, schooling, and spousal search: evidence from South Asia', mimeo, Princeton University, Princeton, NJ.

Yang, Dean (2008), 'International migration, remittances and household investment: evidence from Philippine migrants' exchange rate shocks', *The Economic Journal*, 118, 591-630.

Yaqub, Shahin (2009), 'Independent Child Migrants in Developing Countries: Unexplored links in Migration and Development,' *Innocenti Working Paper* No. 2009-01. Florence, UNICEF Innocenti Research Centre.

Young, Lorraine and Nicola Ansell (2003), 'Young AIDS migrants in Southern Africa: policy implication for empowering children', *AIDS Care*, **15**(3), 337-45.

Zimmerman, Frederick (2003), 'Cinderella Goes to School: The Effects of Child Fostering on School Enrollment in South Africa,' *Journal of Human Resources* 38(3): 557-590

* Edmonds: Department of Economics, Dartmouth College, 6106 Rockefeller Hall, Hanover NH 03755 USA (email: eedmonds@dartmouth.edu). Shrestha: Department of Economics, Massachusetts Institute of Technology, 50 Memorial Drive, Cambridge MA 02142 USA (email: maheshwor@gmail.com). We are grateful to an anonymous referee, Klaus Zimmermann, and Amelie Constant for helpful and constructive comments and suggestions. Much of our thinking on this topic developed in the context of preparing Edmonds and Shrestha (2009), and we are grateful to Shahin Yaqub, Cinzia Tusco Bruschi, Eva Jespersen, David Parker, Anne Kielland, David McKenzie, Richard Akresh, Sylvie Lambert, and Furio Rosati for helpful discussions and input. We appreciate the research assistance of Dana Niu.

Table 1: Number of Children 5-17 in 2002/03 Bangladesh Living Independently

	Total	Male	Female
No parent or grandparent present	1,092,927	504,014	588,911
Married	104,371	39,216	65,154
Of Non-Married:			
Economically Active	135,270	87,174	48,096
Of Economically Active:			
Growing Cereals	39,717	32,892	6,825
Farming of Animals	11,617	3,993	7,624
Mixed Farming	7,624	2,832	4,792
Textiles	6,825	799	6,027
Furniture	17,228	8,358	8,869
Retail Trade	18,101	15,120	2,981
Other	34,158	23,180	10,978

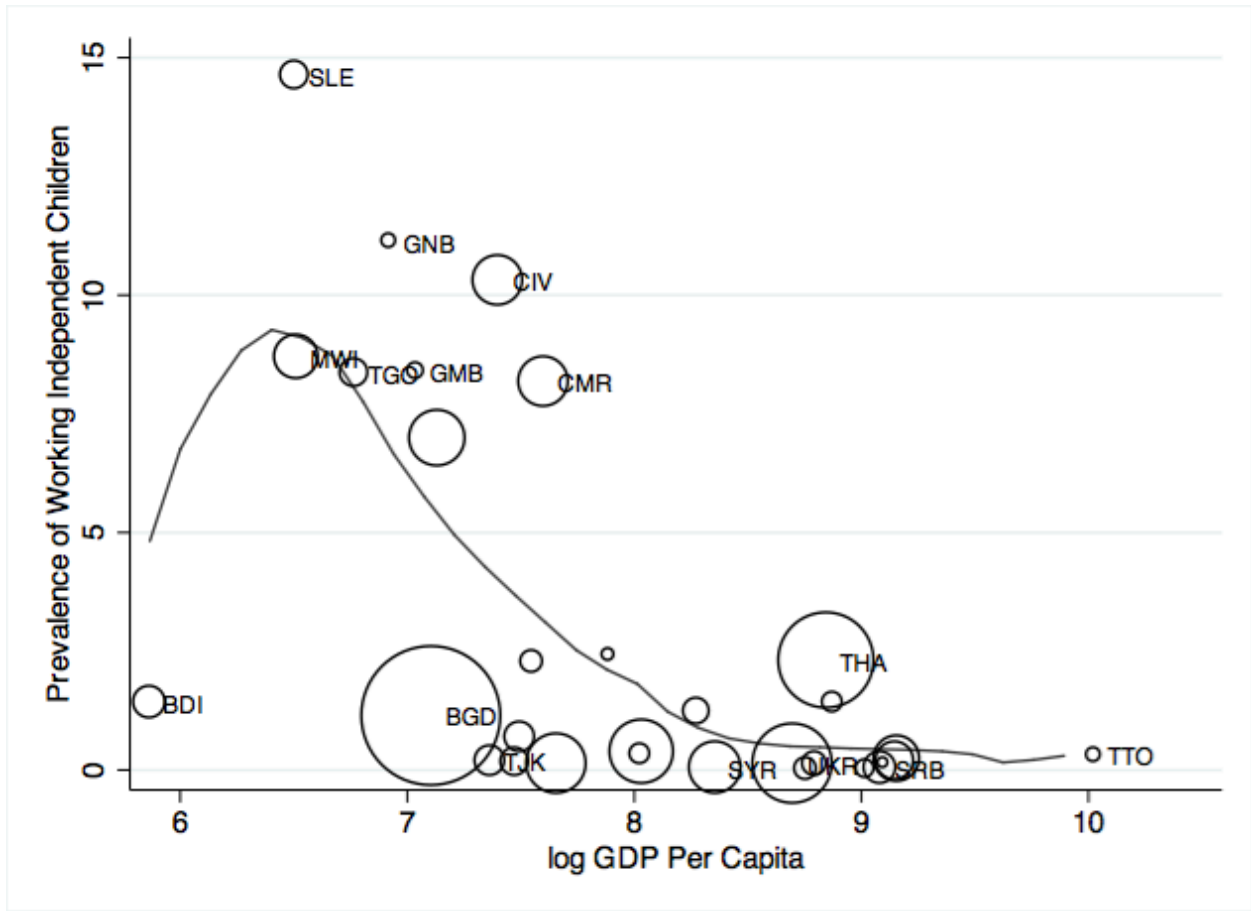
Note: Authors' calculations from the 2002/03 Bangladesh Child Labor Survey. Mixed farming includes both the growing of cereals or other crops and the farming of animals.

Table 2: Different types of independent children in Nepal 2010

	Prevalence	Age	Female	Currently Schooled	Working for wage	Currently abroad
Indep. Children (Roster)	4.9	12.7	67.9	65.7	9.3	0
Indep. Migrants	3.0	12.4	48.5	89.4	10.0	0
Migrants	9.9	12.0	51.0	93.8	7.0	0
Indep. Children (Fertility)	8.6	13.5	41.0	n.a.	n.a.	n.a.
Absentee	11.5	11.6	34.7	79.4	13.0	19.5
Non-migrants	90.1	10.8	50.9	88.0	5.4	0

Source: Authors' calculations from Nepal Living Standards Survey III. Methods are described in the text. For absentees, the work categories are based off of parents' report of the absentee's primary occupation, not based on all the activities that an individual does. Roster matches table 1 in definition. "Indep. Migrants" restricts the "Roster" sample to children who have migrated. "Migrants" refers to children who have migrated regardless of residency with parents. "Fertility" refers to children of a resident female who are not co-resident. "Absentee" refers to children that the household reports as living elsewhere. N.a. indicates that the data is not available.

Figure 1: Economically Active, Independent Children 5-17 and GDP Per Capita



Estimates of the prevalence of economically active independent children are authors' calculation from the MICS-3 data. Population estimates are from the UN population database for 2005 for 5-19. GDP per capita is from the World Development Indicators, 2005 PPP Series. Prevalence estimates are reported in Edmonds and Shrestha (2009).