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CHILDREN'S WORK AND INDEPENDENT CHILD MIGRATION: A CRITICAL REVIEW

Eric Edmonds and Maheshwor Shrestha

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Children's Work and Independent Child Migration: a critical review

Eric Edmonds and Maheshwor Shrestha

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Summary: This review considers the evidence from child labor research that is relevant to understanding independent child migration for work. Child labour research is relevant to the study of independent child migration for work in three ways. First, migration for work is one of the many possible alternatives for child time allocation. The methodological and analytical tools used in the study of child labor are thus applicable to the study of independent child migration for work. Second, independent child migration for work will be reduced by factors that improve alternatives to migration. Child labor at home is one possible alternative to migrating. Thus, influences on child labor will affect independent child migration for work by altering the pressures that push children into migration. Third, the issues that arise in understanding why employers use children are also relevant to understanding what factors pull children into migration.

In existing data resources, two methods are used to identify independent child migrants: the roster method and the fertility survey method. The roster approach identifies migrants by enumerating residents in sampled households. As such, it measures migrants in destination areas and misses children that are difficult to locate, especially those who migrate out of country. The fertility survey method has mothers explain the status of all of their children. This is useful for identifying origin areas for the migrants but is uninformative about the current condition of the child migrant. Stronger data collection efforts are necessary to better measure the extent of working independent child migrants and understand both the source and the living conditions of independent child migrants.

Most existing efforts to understand motives for independent child migration draw conclusions by asking respondents in destination areas why they migrate. This approach is uninformative about motives for independent child migration for two reasons. First, it lacks a comparison population of children from similar background who could have migrated but did not migrate. Second, it is very hard to interpret a single response to such a multifaceted and complex decision as the one for a child to migrate independently and work. This latter point is obvious when child independent migration is considered within a more general time allocation perspective, and it implies that little is to be gained in the design of research by focusing only on trying to capture children who migrate "for work".

Overall, the findings in child labor research offer a great deal of evidence that is relevant for understanding child migrant supply, especially regarding factors that might push children towards migration. However, child labor research is weakest on understanding child labor demand. Hence, it is least useful in understanding what factors pull children into independent child migration. Developing a broader understanding both of the incidence of independent child migrants in poor countries and the sectors these independent child migrants work in is important for developing and targeting future policies aimed at helping these vulnerable children. When appropriate populations are identified, the scientific evaluation of programs aimed at deterring migration or ameliorating its risks is critical. Researchers need to be involved in programs at their inception in order to improve our capacity to aid child migrants as efficiently and effectively as possible.

Keywords: migration, fostering, trafficking, labor mobility, child labor, human capital

Acknowledgments: This project has benefited immensly from the constructive comments of Shahin Yaqub, Eva Jespersen, David Parker and external reviewers. We are also grateful to Anne Kielland, David McKenzie and Furio Rosati for many helpful discussions.
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1. **OVERVIEW**

Children who migrate without their parents are an extremely vulnerable population. Some migrate for schooling, others for work. Many are trafficked, and horrific tales of their abuse sell newspapers. Many believe that parents are more likely to have the best interest of their own children at heart and that parental co-residency mitigates the likelihood of abuse relative to a child living with a different adult or a child living autonomously. The purpose of this review is to evaluate the state of existing research on child independent migration for work.

It is important to be precise about what we mean by independent child migration. A child in this context is an individual below the age of 18. The inclusion of individuals age 15-17 in this definition of a child is controversial in many countries as many countries allow children to enter labor force in this age range and consider them as youth rather than children. Eighteen seems most consistent with the principles put forth in the UN Convention on the Rights of the Child and ILO Convention 182 on the Worst Forms of Child Labor, but a case can be made for being attentive to the cultural context of any country under study. A migrant is someone who has changed the locality of the place they take rest over some period. The appropriate definition of locality is often country specific, and there is little consensus over what the appropriate period is. A common definition of a migrant is someone living away from their community of birth who has moved to their current residence within the last five years. Some migrants are temporary. They intend to return to a prior residence (often birthplace) at some point in the future. Other migrants are permanent in that they do not intend to return. Temporary and permanent migrants can also be transitory in that their intended stay in their current location is brief. There does not appear to be a consensus on what "brief" means. An independent migrant is one who migrated without a parent or a customary adult guardian also migrating to their current residence. It appears very unusual to know with whom a child migrated in most nationally representative surveys and population censuses. Section II of this study considers the measurement of independent child migrants in greater depth. To summarize,

An independent child migrant is an individual below the age of 18, who has changed (permanently or temporarily) their place of residence without a parent or customary adult guardian also migrating to their current residence (usually in a different locality).

There is very little research on independent child migration. Few studies have the data to precisely separate independent child migrants from children of migrants, orphans, or foster children. Orphans have received considerable, substantive attention from researchers because of the HIV crisis in Sub-Saharan Africa. Independent child migrants have received less policy attention and research than have orphans. The purpose of this essay is to examine recent research on child labor in order to understand labor factors that influence independent child migration. The essay draws from academic child labor studies, national child labor surveys, and sector studies of sectors that are likely to include child migrants.

We refer to an individual who makes decisions about how children should spend their time as the decision-making agent. The agent may be the child, his parents, a relative, a community leader, etc. Typically, there are multiple agents involved in decisions to work or migrate. We return to this issue in detail below, but a convenient initial simplification is to consider a
single decision-making agent in whether the child migrates. This simplification lacks nuance, but it simplifies the conceptual framework considerably.

Children migrate when the agent is better off with the child migrating than not.

A simple conceptual framework for the analysis of independent child migration is to categorize factors that influence independent child migration as:

**Migrant supply:** What influences an agent's willingness to have the child migrate? Migrant supply will be determined by the characteristics of migrants, their families, and their home communities. The relative importance of different factors on migrant supply may vary depending on who the decision-makers are as well as from context to context.

**Migrant demand:** What factors influence an employer's desire or willingness to hire migrant child laborers? Migrant demand depends on the types of employment opportunities, legal institutions, and other resources available in destination areas.

Migrant supply is influenced by many of the same factors that affect child labor, and factors that affect migration in general. Migrant supply will be heavily influenced by factors affecting child labor if child labor market is non-existent or child wages are lower in the origins. In that situation, migration becomes just a way for children to work. Child migration for work can also be viewed as a way for family to diversify their income portfolio. This view is similar to the factors influencing adult migration where families send some members away so that total family income/expenditure becomes more resilient to shocks. In addition, sending children away might be a way for families to release some liquidity. This might be particularly true if daily sustenance is a problem and the family expects income in the future. By sending a child away, the family releases liquidity equivalent to the child’s consumption and expenditure.

The possibilities of independent child migration for work and/or school are part of the time allocation options available to agents making child time allocation decisions. Section III of this study provides a brief review of the child labor literature. The quantity of local labor demanded in a community will be negatively correlated with the number of labor migrants supplied for a given population. Hence, many factors that draw children into employment in a locality will reduce the incidence of child out-migration. For example, higher child wages in a community would lead to more child labor, everything else equal, and less out-migration. Thus, labor demand in a community influences migrant supply from the community. However, characteristics that influence the supply of migrants from origin communities do not necessarily influence a destination area employer's desire to hire a migrant worker. In this way, child labor demand in a sending area influences migrant supply to destination areas but need not influence the destination area's demand for migrants.

Improving our understanding of migrant demand is a major goal of this study. In section IV, we review several case studies of sectors where child migrants work. We draw from these cases to form several hypotheses about the characteristics of these sectors and reasons that entice child migrants. Formally testing and evaluating these hypotheses is one of the research gaps discussed in detail in section V of this review.
2. MEASUREMENT OF INDEPENDENT CHILD MIGRANTS IN EXISTING DATA

There do not appear to be estimates of the prevalence of independent child migrants available for the world as a whole. A hint at the prevalence and importance of independent child migration comes from the 2006 UNICEF MICS3 Project. It is possible with the MICS project data to compute the prevalence of children living away from any biological parent for 21 countries using comparable survey designs and instruments. This, however, is only a crude proxy of the estimates and prevalence of independent child migrants. The discrepancy between this measure and the actual number of independent child migrants is discussed later in this section.

Table 1: Estimates of Children not living with a Biological Parent in 2006

<table>
<thead>
<tr>
<th>Country</th>
<th>Under 18 Population (in '000)</th>
<th>% Children not living with a biological parent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>all</td>
<td>male</td>
</tr>
<tr>
<td>Albania</td>
<td>1,003</td>
<td>0.4%</td>
</tr>
<tr>
<td>Armenia**</td>
<td></td>
<td>0.7%</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>64,194</td>
<td>5.8%</td>
</tr>
<tr>
<td>Belize</td>
<td>123</td>
<td>6.6%</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>842</td>
<td>0.4%</td>
</tr>
<tr>
<td>Cambodia*</td>
<td>4,303</td>
<td>1.4%</td>
</tr>
<tr>
<td>Gambia</td>
<td>784</td>
<td>15.9%</td>
</tr>
<tr>
<td>Georgia</td>
<td>1,043</td>
<td>2.9%</td>
</tr>
<tr>
<td>Ghana</td>
<td>10,452</td>
<td>7.7%</td>
</tr>
<tr>
<td>Indonesia**</td>
<td></td>
<td>2.6%</td>
</tr>
<tr>
<td>Jamaica</td>
<td>1,011</td>
<td>13.7%</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>1,959</td>
<td>5.4%</td>
</tr>
<tr>
<td>Malawi</td>
<td>7,286</td>
<td>18.1%</td>
</tr>
<tr>
<td>Mongolia</td>
<td>918</td>
<td>3.8%</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>2,827</td>
<td>20.3%</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>3,090</td>
<td>1.8%</td>
</tr>
<tr>
<td>Thailand</td>
<td>16,522</td>
<td>19.3%</td>
</tr>
<tr>
<td>Macedonia</td>
<td>486</td>
<td>0.4%</td>
</tr>
<tr>
<td>Uganda^</td>
<td></td>
<td>26.8%</td>
</tr>
<tr>
<td>Ukraine</td>
<td>8,676</td>
<td>1.0%</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>10,673</td>
<td>1.9%</td>
</tr>
<tr>
<td>Yemen</td>
<td>11,482</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

Source: Gathered from MICS 3 Country Reports unless otherwise stated, * Calculated from NIC Cambodia Table 5.1 and 7.1, for children 5-17. ** MICS 2000, Table 8.2 for children 0-14, ^ Computed from Table 5.5, Child Labor in Uganda Report Based on DHS, 2001; for children 5-17, ^^ Armenian DHS 2000 Report, Table 2.3, for children under 18

Table 1 presents such estimates for the 21 MICS country reports available in English at the time of writing. There is considerable variation across countries. Albania, Bosnia and Herzegovina, and Republic of Macedonia have the lowest proportion (0.4 percent) of children
not living with a biological parent, whereas Gambia, Malawi, Thailand, Sierra Leone, and Uganda have more than 15 percent of children that are not living with a biological parent. From the table, it is possible to compute the total number of children under 18 in these countries and the total number of children not living with a biological parent. Based on this calculation, 7.2 percent of children in these 21 countries are not living with a biological parent. This amounts to above 10.6 million children not living with a biological parent.

Girls are more likely to live without a biological parent than are boys in these 21 countries. Table 1 reports the proportion of boys and girls that are not living with a biological parent. For seventeen of the 21 countries, more females as a proportion of their total numbers are not living with a biological parent. Overall (computed from the table), about 6.8 percent of boys and 7.8 percent of girls are not living with a biological parent. One possible explanation could be the early marriage of girls that makes them migrate earlier (as in case of India, Rosenzweig and Stark 1989). Marriage is not the only reason girls more often live away from parents. Gultiano and Xenos (2004) document that women outnumber men overall in the more urbanized areas of the Philippines, especially in ages 15-19.

As mentioned earlier, number of children not co-resident with a biological parent is only a crude proxy for the actual number of independent child migrants. Children could be living away from their biological parents for a number of reasons apart from their independent migration: both of their parents are dead, their parents have migrated, or that they are living with other relatives or foster families. These children will cause the estimates presented in Table 1 to be an overestimate of the actual number of independent child migrants. The table may also understate independent child migrates. Children living outside of households are often difficult to capture in household based surveys, and we have many anecdotes of independent child migrants living in factories or on the street. Due to lack of appropriate data to measure the extent of these factors, it is impossible to know the magnitude and direction of bias in the above estimates.

Many nationally representative household surveys offer two ways to measure the extent of independent child migrants. First, these surveys based on a random sample of households in the population often fully enumerate household members, although it is sometimes unclear how a "member" is defined. Rosters are useful to identify migrants at their destination location. It is possible from household rosters to identify children that have recently migrated and that live without a co-resident parent. The main concern with this roster approach, hereafter the "roster method," is that the most vulnerable child migrants may be outside of the household survey's sampling frame, living out of country or outside of registered households. Second, some household surveys contain fertility surveys that ask mothers about all of their live births. This fertility survey is useful to identify where migrant children are from by identifying live births that are no longer resident with their mothers. We refer to this approach as the "fertility method" throughout this essay. This codification misses children whose mother is no longer alive and often contains limited information on the child migrant himself (whose status the mother may be poorly informed about). One common variation to the fertility method is to collect information about children living away from the household from the household head or other informants, rather than just the mother. An important distinction between the roster and fertility methods is that the roster gives information on the destination of the independent child migrants whereas the fertility approach provides information on the
origin of the independent child migrants. On the downside, the roster approach tells us nothing about the origins of the migrants (unless there are questions that directly assess migration) whereas the fertility approach fails to tell us more about the destinations apart from what mothers might know about the destinations.

However, it is important to note that the estimates calculated from these two methods will have some biases similar to those affecting the estimates of Table 1. Children living with a foster family, for instance, will be considered as independent migrants by both the methods. These children, however, often migrate under the supervision of adult guardians taking care of them and lack the vulnerability of independent child migrants. Similarly, children of migrant parents are likely to be considered as independent child migrants in both the methods since the parents of the children would not be co-residing with them. This problem is more likely to affect estimates drawn from fertility approach rather than the roster method as it is possible to couple the co-residence information with migration information more easily in the roster method. This would also contribute to the differences in estimates calculated from the two different methods.

An example of the differences and similarities that come from these two different types of calculations can be found in Table 2 (next page). The 2006 Demographic and Health Survey in Nepal allows us to identify whether the child's mother or father is co-resident with the child and whether each is still alive directly from the roster. It also contains a classic fertility survey where we can identify the child's age, gender, and whether the surviving child is co-resident with the mother. Using the fertility method, we observe that 8.5 percent of children under 18 in Nepal live without a parent. Based on the roster, we identify 8.2 percent of children that do not live with a parent, which is similar to the estimate from the fertility survey. As the fertility survey approach is identified by asking mothers, it is most directly comparable to estimates of the number of children living without their mothers on the roster. Thus, the similarity of the calculation from the roster and the fertility is somewhat misleading. Actually, 10.4 percent of children under 18 in Nepal are living without their mothers according to the roster, which is substantively different from the estimate from the roster method. The difference between these two theoretically comparable estimates illustrates the variation in estimates of the number (or proportion) based on various approaches of identifying independent child migrants.

For children under 15 in Nepal, the roster approach identifies a greater prevalence of children living without their parents or without their mother than the fertility approach does. This would be predicted by the types of selection problems we expect with the fertility module of the survey. For instance, the survey only selects women aged 15-49 and currently living in the household for the fertility module and ignores mothers outside of this age range or mothers living in unregistered households or outside the country.

For children under 15 in Nepal, the roster approach identifies a greater prevalence of children living without their parents or without their mother than the fertility approach does. This would be predicted by the types of selection problems we expect with the fertility module of the survey. For instance, the survey only selects women aged 15-49 and currently living in the household for the fertility module and ignores mothers outside of this age range or mothers living in unregistered households or outside the country.
Table 2: The Living Arrangements of Children in the 2006 Nepal Demographic and Health Survey

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Source</th>
<th>All Children Under 18</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fertility Survey</td>
<td>8.49%</td>
<td>8.60%</td>
<td>8.37%</td>
</tr>
<tr>
<td></td>
<td>Roster</td>
<td>8.22%</td>
<td>6.57%</td>
<td>9.87%</td>
</tr>
<tr>
<td></td>
<td>Mother Alive but Not Living With Mother</td>
<td>8.13%</td>
<td>6.86%</td>
<td>9.39%</td>
</tr>
<tr>
<td></td>
<td>Roster</td>
<td>10.41%</td>
<td>9.08%</td>
<td>11.73%</td>
</tr>
<tr>
<td></td>
<td>Father Alive but Not Living With Father</td>
<td>Roster</td>
<td>29.06%</td>
<td>27.90%</td>
</tr>
<tr>
<td></td>
<td>Roster</td>
<td>32.62%</td>
<td>31.62%</td>
<td>33.62%</td>
</tr>
<tr>
<td>Both Parents Dead</td>
<td>Roster</td>
<td>0.26%</td>
<td>0.25%</td>
<td>0.27%</td>
</tr>
</tbody>
</table>

Children 0 - 4

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Source</th>
<th>All Children Under 18</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fertility Survey</td>
<td>1.23%</td>
<td>1.24%</td>
<td>1.22%</td>
</tr>
<tr>
<td></td>
<td>Roster</td>
<td>2.28%</td>
<td>2.24%</td>
<td>2.32%</td>
</tr>
<tr>
<td></td>
<td>Mother Alive but Not Living With Mother</td>
<td>2.40%</td>
<td>2.57%</td>
<td>2.23%</td>
</tr>
<tr>
<td></td>
<td>Roster</td>
<td>2.93%</td>
<td>3.06%</td>
<td>2.80%</td>
</tr>
<tr>
<td></td>
<td>Father Alive but Not Living With Father</td>
<td>Roster</td>
<td>32.88%</td>
<td>33.09%</td>
</tr>
<tr>
<td></td>
<td>Roster</td>
<td>33.72%</td>
<td>34.06%</td>
<td>33.36%</td>
</tr>
<tr>
<td>Both Parents Dead</td>
<td>Roster</td>
<td>0.02%</td>
<td>0.03%</td>
<td>0.01%</td>
</tr>
</tbody>
</table>

Children 5-9

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Source</th>
<th>All Children Under 18</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fertility Survey</td>
<td>4.08%</td>
<td>4.53%</td>
<td>3.57%</td>
</tr>
<tr>
<td></td>
<td>Roster</td>
<td>6.31%</td>
<td>5.01%</td>
<td>7.72%</td>
</tr>
<tr>
<td></td>
<td>Mother Alive but Not Living With Mother</td>
<td>6.73%</td>
<td>5.50%</td>
<td>8.05%</td>
</tr>
<tr>
<td></td>
<td>Roster</td>
<td>8.33%</td>
<td>7.25%</td>
<td>9.48%</td>
</tr>
<tr>
<td></td>
<td>Father Alive but Not Living With Father</td>
<td>Roster</td>
<td>29.55%</td>
<td>28.86%</td>
</tr>
<tr>
<td></td>
<td>Roster</td>
<td>32.04%</td>
<td>31.70%</td>
<td>32.41%</td>
</tr>
<tr>
<td>Both Parents Dead</td>
<td>Roster</td>
<td>0.07%</td>
<td>0.08%</td>
<td>0.06%</td>
</tr>
</tbody>
</table>

Children 10-14

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Source</th>
<th>All Children Under 18</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fertility Survey</td>
<td>9.04%</td>
<td>10.82%</td>
<td>7.28%</td>
</tr>
<tr>
<td></td>
<td>Roster</td>
<td>9.54%</td>
<td>9.09%</td>
<td>9.98%</td>
</tr>
<tr>
<td></td>
<td>Mother Alive but Not Living With Mother</td>
<td>9.58%</td>
<td>9.27%</td>
<td>9.89%</td>
</tr>
<tr>
<td></td>
<td>Roster</td>
<td>12.61%</td>
<td>12.64%</td>
<td>12.59%</td>
</tr>
<tr>
<td></td>
<td>Father Alive but Not Living With Father</td>
<td>Roster</td>
<td>25.02%</td>
<td>23.82%</td>
</tr>
<tr>
<td></td>
<td>Roster</td>
<td>30.38%</td>
<td>29.75%</td>
<td>31.00%</td>
</tr>
<tr>
<td>Both Parents Dead</td>
<td>Roster</td>
<td>0.44%</td>
<td>0.47%</td>
<td>0.42%</td>
</tr>
</tbody>
</table>

Children 15-17

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Source</th>
<th>All Children Under 18</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fertility Survey</td>
<td>31.78%</td>
<td>29.24%</td>
<td>34.26%</td>
</tr>
<tr>
<td></td>
<td>Roster</td>
<td>19.32%</td>
<td>14.41%</td>
<td>23.31%</td>
</tr>
<tr>
<td></td>
<td>Mother Alive but Not Living With Mother</td>
<td>24.93%</td>
<td>19.09%</td>
<td>29.68%</td>
</tr>
<tr>
<td></td>
<td>Roster</td>
<td>28.52%</td>
<td>22.93%</td>
<td>33.08%</td>
</tr>
<tr>
<td></td>
<td>Father Alive but Not Living With Father</td>
<td>Roster</td>
<td>36.07%</td>
<td>30.03%</td>
</tr>
<tr>
<td></td>
<td>Roster</td>
<td>0.75%</td>
<td>0.69%</td>
<td>0.80%</td>
</tr>
</tbody>
</table>

Source: Authors' calculations from the 2006 Demographic and Health Survey in Nepal. Fertility Survey data is collected only from married mothers 15-49. Proportions from the fertility survey use total live reported births that are still living as the denominator.

The prevalence of children living independent of their parents is increasing with age. 21.2 percent of 15-17 year olds in Nepal live independent of any parent in Nepal according to the roster approach. For this older, most prevalent group, the fertility method gives a greater estimate of children living away from parents than does the roster. This difference in the older cohort may reflect that older children living away from any parent are more apt to form their own household. Small, newly formed households are less likely to be in the DHS
sampling frame. Hence, sample frame problems may be increasingly substantive with older children.

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. However, most censuses record household members with relationship stated towards the household head only. When household structures are non-nuclear and complex, it can be very hard to identify the parents of every single child from the roster. In such cases, it is difficult, though not always impossible, to establish whether the child is co-resident with her parents. In addition, when migrant history is collected in the census, it is rare to find information on how the child migrated as well as the presence of parents or other adult guardian.

One prominent study that uses census data to study the characteristics of international migrants is McKenzie (2008). His study centers on youths aged 12-24. Table 3 reports McKenzie's estimates of the proportion of child migrants that are living without their parents and the proportion working by gender and country of destination. Youths in destinations like Costa Rica, Ivory Coast, and Kenya are most likely to be independent. The proportion of independents increases with age especially in the UK and Argentina. McKenzie observes that about 20 percent of children 12-14 and 50 percent of children 15-17 do not accompany a parent and migrants to a developing country are more likely to be unaccompanied. The proportion of child migrants who are independent varies by gender too. For age group 12 – 14, girls out-proportion boys in independence in Costa Rica, Kenya, Mexico, and Portugal, and for age group 15-17, girls out-proportion boys in independence in Argentina, Canada, Costa Rica, Cote d'Ivoire, Kenya, Mexico, Spain, and the UK. This observation is more or less consistent with Gultiano and Xenos (2005) who document more independent female migrants for the 15-17 age group. Table 3 also shows that for migrant children, boy migrants are more likely to work than are girl migrants except for age group of 15-17 in the UK. McKenzie also observes for youths 18-24, migrants are clustered in certain types of work more than older migrants or local youths in the same age group. He finds that young (18-24) migrant males are working in physically demanding jobs like construction and agricultural labor whereas young migrant females are more likely to work as domestic workers, cashiers, sales clerks, waiters, and cooks. Employment sectors are not available in his study for children under 18.
Several country reports explicitly attempt to measure the prevalence of independent child migrants by drawing on more detailed questions added to censuses, multipurpose household surveys, labor force surveys, and child labor surveys. Table 4 provides a summary of the estimates available from such studies. The estimates show a considerable variation in numbers and proportion of children engaged independent migration. The number ranges from 60,000 for Cambodia to 1 million child independent migrants for Bihar and Uttar Pradesh states of India. Similarly, the proportion of child independent migrants ranges from 1 percent for Nepal to 27 percent for Uganda.

Table 4: Estimates of Independent Child Migrants for various Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Study</th>
<th>Year</th>
<th>Method</th>
<th>Age Group</th>
<th>Proportion of migrant</th>
<th>Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benin</td>
<td>Anne Kielland</td>
<td>2008</td>
<td>Fertility</td>
<td>6-16</td>
<td>22%</td>
<td>100,000</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>Anne Kielland and Ibrahim Sanogo</td>
<td>2002</td>
<td>Fertility</td>
<td>6-17</td>
<td>9.5%</td>
<td>333,000</td>
</tr>
<tr>
<td>Cambodia</td>
<td>Child Labor Survey</td>
<td>2001</td>
<td>Roster</td>
<td>5-17</td>
<td></td>
<td>60,147</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>Child Labor Survey</td>
<td>2001</td>
<td>Roster</td>
<td>5-17</td>
<td>11.4%</td>
<td></td>
</tr>
<tr>
<td>Ghana</td>
<td>Child Labor Survey</td>
<td>2001</td>
<td>Roster</td>
<td>5-17</td>
<td>10.9%</td>
<td>688,000</td>
</tr>
<tr>
<td>India (Bihar and</td>
<td>Eric Edmonds and Philip Salinger</td>
<td>2007</td>
<td>Fertility</td>
<td>5-14</td>
<td></td>
<td>1,000,000</td>
</tr>
<tr>
<td>Uttar Pradesh)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mongolia</td>
<td>Child Labor Survey</td>
<td>2002-03</td>
<td>Fertility</td>
<td>5-17</td>
<td>10%</td>
<td>70,215</td>
</tr>
<tr>
<td>Nepal*</td>
<td>Migration and Employment Survey</td>
<td>1996</td>
<td>Fertility</td>
<td>5-17</td>
<td>1.06%</td>
<td>80,000</td>
</tr>
<tr>
<td>Uganda</td>
<td>Demographic and Health Survey</td>
<td>2000-01</td>
<td>Roster</td>
<td>5-18</td>
<td>26.6%</td>
<td></td>
</tr>
</tbody>
</table>

Note: * includes migration accompanied by parents as well.

Several country reports explicitly attempt to measure the prevalence of independent child migrants by drawing on more detailed questions added to censuses, multipurpose household surveys, labor force surveys, and child labor surveys. Table 4 provides a summary of the estimates available from such studies. The estimates show a considerable variation in numbers and proportion of children engaged independent migration. The number ranges from 60,000 for Cambodia to 1 million child independent migrants for Bihar and Uttar Pradesh states of India. Similarly, the proportion of child independent migrants ranges from 1 percent for Nepal to 27 percent for Uganda.
We present a brief review of these studies in the remainder of this section.

**Benin**

Anne Kielland (2008) uses the fertility method to estimate the extent of child migration for work in Benin. She surveys 6,510 mothers from 4,722 randomly selected rural households of Benin and asks the whereabouts of their living children. Information on children whose mothers were dead was collected through reports from at least two other women. From this method, she collects information on 13,324 children aged 6-16. Her results show that 22 percent of children aged 6-16 were independent migrants. This translates to an estimate of 100,000 independent child migrants aged 6-16 nationwide. She finds that boys were slightly older than girls at the age of migration. Boys were, on average, 11 years old at migration. Girls were 10. Asking respondents to attribute causation and motives to behaviors is notoriously difficult in all surveys. Nonetheless, the answers Kielland receives to a question about why the child migrated are interesting. 9 percent of children (41 percent of independent migrants) report that work was the reason for migrating, 5 percent for study, 2 per cent to marry, and the remaining 6 percent migrated for ‘other reasons’. Her study reveals that about half of the migrants had migrated abroad and boys dominate girls in cross-border migration (girls were mostly internal migrants).

**Burkina Faso**

Another prominent study that delves on the magnitudes of child migrants is done by Anne Kielland and Ibrahim Sanogo (2002) in Burkina Faso. Similar to Kielland’s fertility approach in Benin, Kielland and Sanogo surveyed all mothers with children 0-18 from 4,463 randomly selected households from 149 villages in Burkina Faso. In their data, 7,354 mothers reported the whereabouts of 23,542 children aged 0-18. To account for children whose mothers were dead or absent, they used information gathered from at least two women to report on behalf of the children.

The study finds that 9.5 percent of children aged 6-17 have left their parents, which translates to a national estimate of about 333,000 children, about half of them girls. Girls primarily go to other villages, whereas the most favored destination for boys is Cote d’Ivoire. About 29 percent of the migrants lived abroad, mostly in Cote d’Ivoire (more than about 70,000 migrants of the age group 6-17). The study reveals that most of the domestic rural-urban migration takes places to Ouagadougou and Bobo Diolassou. Girls are more likely to leave home with relatives whereas boys are more likely to leave with strangers and friends.

According to this study, age at migration exhibits similar pattern to that of Benin. Girls migrate at a younger age (10.8 years) than do boys (11.5 years). The average ages are slightly lower for children who left with the objective to study. For them, average age for boys was 11 years and that for girls was 10.4 years.

The authors identify child labor migrants in the survey as those who left from rural areas with a motive of work or ‘other reasons’ apart from marriage and study and are not currently attending school. They also include girls who left abroad with a motive of marrying and are not attending school, and boys who left with a motive of study but are not attending school. In their sample, the latter criteria include only a small group of child migrants. Using these
criteria, they estimate that a total of 165,000 child independent migrants move for work, among which 94,000 are boys.

Their study finds that almost 83,000 Burkinabe children work abroad, which comprises of more than 47,000 boys and 35,000 girls. Most children who work abroad are located in Cote d’Ivoire. This amounts to 66,000 children, out of which 36,000 are boys. Ghana and Benin are other major destinations for independent child labor migrants and have about 7,000 and 3,000 Burkinabe working children respectively.

**Cambodia**

National Institute of Statistics (2002) uses the roster method and the Cambodian Child Labor Survey, 2001 to estimate the prevalence of migrant children in Cambodia. The survey uses household questionnaires to ask the migration status of children aged 5-17 currently residing in the household. The survey interviews 12,000 households from 600 villages throughout Cambodia, and based on the migration status of the children within the last five years of the survey, estimates 60,147 children living away from their homes, out of which 27,053 were females.

The survey finds that the majority of children living away from home (37,496 children) are currently working. Females constitute 44 percent of the total independent migrant working children. The survey indicates that the number of independent migrant working boys increases with age, with the highest proportion (48.4 percent) at age group 15-17, whereas for girls, largest proportion (43.8 percent) are aged 10-14.

According to the survey, the highest proportions of migrant working children are located in the urban areas, especially in the province of Phnom Penh and neighboring Kanda. The largest proportion (45.8 percent) of independent migrant working boys were attending school or a training institution prior to migrating and the largest proportion (36.9 percent) of girls were engaged in household chores and house-keeping before they decided to migrate. About 56.5 percent younger migrant working children aged 5-9, especially migrant working girls (72.7 percent), were involved in household chores and housekeeping prior to migrating.

**Ethiopia**

Central Statistical Authority of Ethiopia (2001) uses the roster method and the 2001 National Child Labor Survey to estimate the extent of child migration in Ethiopia. The survey interviews 43,601 households from 1,256 Enumeration Areas throughout the country. For each of the households interviewed, the survey asks the parents/household heads about migration status of children aged 5-17. The survey identifies independent migrant children as those children who have been living in another household for more than six months before joining the current household. A child is considered as a migrant even if the child returns to his place of birth after having lived for more than six months in another household. A child is not considered a migrant if the child has moved to another geographical area with all or part of his household members. Based on these criteria, the Central Statistical Authority of Ethiopia estimates that 11.4 percent of children aged 5-17 have independently migrated at some point in their lives. The incidence of such migration increases with age. About 21 percent of children 15-17 have been independent child migrants.
The report indicates that independent child migrants are typically urban residents. In urban areas, 22 percent of children aged 5-17 are independent migrants whereas in rural areas 10 percent of children are independent migrants. The phenomenon of independent child migration was more common for girls than for boys. More than 13 percent of girls aged 5-17 are independent migrants compared to only 10 percent of boys.

Apart from their migration status, the survey also asked parents/household heads regarding their main reason for migration. More than 28 percent of the children migrated to live with their relatives, 14 percent of them moved for education or training, and 12 percent moved because of parental death. More than 12 percent of the children moved directly due to job related reasons (job transfer, found a job, or search for job). A large 21 percent of the children moved for ‘other’ reasons.

**Ghana**

The 2001 Ghana Child Labor force survey (Ghana Statistical Service, 2003) uses the roster method to arrive at an estimate of child migrants in Ghana. The survey interviews 9,889 (out of targeted 10,000) households from 500 Enumeration Areas selected systematically with probability proportional to size (number of households) based on 2000 Population and Housing census. The survey asks the parents (or household heads) of children aged 5-17 about whether their children have been residing with the current household since birth. According to this definition, there are 10.9 percent of child migrants in the country. This amounts to about 688,000 children nationwide (1,859 children in the sample, each weighing about 370.12 children) out of which more than 406,000 are girls.

The survey finds that the likelihood of migration increases with age. About 15.9 percent of children of the age group 15-17 have migrated since birth compared to 12.6 percent of children aged 10-14 and 7.1 percent of children aged 5-9. The survey shows that migration is common in urban areas with 14.9 percent of urban children who have migrated compared to 8.6 percent of rural children. According to the survey, migration is more common in the southern sector of the country. More than half of the migrant children lived in another locality within the same region. This is true for both sexes for all ages and for all regions, except Greater- Accra, where more than 72 percent of children migrated from other regions.

According to the survey, migration is more common amongst girls. About 13.5 percent of the girls have migrated compared to 8.6 percent of the boys. The incidence of migration is high for girls across all age groups and rural/urban locality.

In addition to the migratory status of the children, the survey also asks for the main reason for migration. According to the survey, parents play a large role in child migration. About 37.4 percent of the migrant children were sent by their parents, 9.3 percent moved with parents whereas 7.2 percent were forced to move because of parental death. Education and training is another important reason for child migration and accounts for about 31.2 percent of child migrants. Only 4.5 percent of the migrant children seem to have moved for job related reasons (job transfer, found job, or looking for job) whereas about 9.5 percent children move mainly for ‘other’ reasons.
India

Edmonds and Salinger (2007) use the fertility method to identify child migrant in the states of Bihar and Uttar-Pradesh in India. They use the Uttar Pradesh and Bihar Survey of Living Conditions data, which interviews 2,250 households resident in 120 villages spread over 25 districts. The survey asks detailed fertility history for married women who are aged 15-45 and the authors compare this with the household roster to identify children of the interviewed mothers who are alive but not living with their mothers in the same household. They find about 1 million children aged 5-14 living away (permanently) from their mothers, 39 percent of whom are females. However, an important caveat of this approach is that it ignores children whose mothers are dead or living in a different region, or children from unwed mothers. Therefore, the estimate of independent migrant children is likely to be an underestimate.

Edmonds and Salinger observe that migrant children tend to be about a year older, on average, compared to non-migrant children. Migrant children tend to be old amongst siblings as well. The authors find that migrant children are more likely to come from backward agricultural castes and less likely to come from a scheduled caste or a tribe. This suggests that caste could play an important role in India in shaping migration patterns and possibly migration demand.

Mongolia

The Mongolia National Child Labor Survey 2002-03 uses a variation of the fertility method to estimate the number of independent child migrants (National Statistics Office of Mongolia, 2004). The survey interviews 12,800 households throughout the country and asks household heads about information on children aged 5-17 who are living away from their households for more than 6 months. Based on the information from the heads, National Statistics Office of Mongolia estimates that there are 70,215 independent child migrants throughout Mongolia. This accounts for about 10 percent of the total children of the same age group.

The survey report finds that a vast majority of the migrant children are studying. This probably owes to the nomadic lifestyle of Mongolian people, which requires children to separate from their roaming families and board in for education. Of the child migrants, only 1,636 child migrants are working and 2,238 are engaged in ‘other’ activities apart from studying and working. Among the independent child migrants, the proportion of working children is higher in Urban Centers (4.9 percent each) compared to rural areas (2.1 percent).

The survey reveals that independent child migrants in Mongolia chiefly originate from rural areas. More than 90 percent of the independent child migrants originate from rural areas. Large amount of migrants from the rural areas, coupled with overwhelming numbers of migrants who migrate for educational purposes indicates that poor school access in poor and rural Mongolia probably triggers much of child migration.

Nepal

KC et al (1997) use the nationally representative Migration and Employment survey of 1996 to study about migration of working children in Nepal. Their approach is similar to the fertility method. The survey collects information on individuals (children included) who were
absent during the time of the survey for at least six months and up to five years. They find that 1.06 percent (80,000) of the total children aged 5 -17 migrated for economic reason during the past five years of the survey. The survey, however, does not distinguish whether the children moved alone or accompanied a family member.

The authors find that migration phenomenon in Nepal is largely dominated by boys and constitute 84 percent (67,000) of the total child migrants’ volume. As in most other surveys, propensity of child migration increases with age for both male and female population. A majority of the migrants (44,000) were aged 15-17. Migration for economic reasons were more likely in the rural areas where 1.12 percent of children aged 15-17 migrated compared to 0.48 of urban children. About half of the total migrants originated from the hilly regions of the country and a huge proportion of migrants 60.8 percent (49,000) migrated to India. Domestic child migrants constitute 33.7 percent of the total migrant volume and most of them (54.1 percent) migrated to urban areas. Within the country, the study finds, central region with the capital city is a major destination child labor migrants. The study also reveals that child migrants are mostly engaged in service sector (38.4 percent of total migrant child labors) and in other sectors which includes housewives, dependents, disabled, students, and no-responses. Agriculture, the predominant occupation for the rest of the country, was chosen by only 5.7 percent of the migrant child labors.

The cross-border flow of children between Nepal and India creates substantive difficulties for the collection of information about independent child migrants from Nepal. Ragunath Adhikari and Nishant P. Pradhan (2005) study child migrant flow of Nepali children to and from India in Western Nepal. During the first three months of the survey, they interview every possible child crossing the border to India from five different major border-crossing points in western Nepal (in Western, Mid-Western, and Far-Western regions). The authors report that they were able to interview more than 90 percent of the children crossing the border during that period. They find 17,583 children under 18 crossing border to go to India during the three-month period. The number indicates a high migrant outflow, considering for the fact the study period coincides with the rice planting time when local demand for agricultural work is very high.

In the last two months of their survey, they interviewed Nepalese children returning to Nepal from India in the same border crossing points. The authors find only 8,210 children under 18 returning to Nepal from India during this period. This number is very low compared to the migrant outflow although the difference could owe to seasonal issues. Considering that the authors timed their study to maximize the number of returning migrants, their results are surprising. The survey time coincides with the festivals of Dashain, when Nepalese typically return to their homes in Nepal.

Results from Adhikari and Pradhan are very similar to those of KC et al (1997). They document a large number of boys (87 percent) in the migrant flow of Nepali children. Almost half (48 percent) of the children were aged 16-17 compared to 25 percent of children aged 11-15 and remaining 27 percent younger than 11. Usually children tend to travel with older people or family members. Only about 13 percent of the total migrants were travelling alone, almost all of whom were of the older age group and had previous experience of migration. Less than half of migrant children were accompanied by a nuclear family member. Caste
plays an important role in the composition of migrant children with Dalits (lower castes) and Chhetris (one of the higher castes) having disproportionately larger shares of the migrant volume. Most of these migrant children hail from southern districts closer to the Indian border. About 20 percent children originated from Kailali district, which is a major gateway to India. Other districts with high proportion of migrants were from hilly districts of western Nepal (mid-Western and Far-Western Regions) which were the most conflict-affected regions as well as are far from major Nepalese urban centers.

A typical reason for the Nepalese migrant children to enter India is to find work. The survey finds that 10,995, or 63 percent, of the outgoing children plan to work in India, especially in cities such as Shimla, Dehradun and Mumbai. Other purposes include health check-ups, tourism, or education but the authors doubt the veracity of the purpose and consider this number to be an understatement. Amongst the children who plan to work in India, nearly half (48 percent) intend to do ‘labor’ jobs, possibly in construction or other jobs requiring physical strength. Other intended jobs include work as porters and work in hotels. A notable proportion of children intending to work do not have a particular job in mind.

The survey of the returnees would shed more light on the types of work Nepali child migrants in India do, but unfortunately, the response rate from the returnees is very low. Only 26 percent of the returnees provided information on the type of work they did in India. Out of these respondents, 62 percent were engaged in ‘labor’ work, 16 percent in hotel work and 13 percent worked as porters. It is not clear from the survey what specific sectors does ‘labor’ work comprises. However, the authors indicate that most likely it includes work that requires physical strength.

**Uganda**

An ILO/IPEC and Uganda Bureau of Statistics (2001) report on Child Labor based on the 2000/2001 Demographic and Health Survey use the roster method to estimate the extent of independent child migration. They find that 26.6 percent of children 5-18 live with neither parent. In Uganda, girls are more likely to live away from parents (29.5 percent) than are boys (24 percent). Amongst children living away from their parents, boys are more likely to work (12 percent) than are girls (9 percent). Overall, children living away are more likely to work compared to children living with both parents or with only fathers. Girls and all children are more likely to work when they are living with their mother only.

As evident from the review above, information available on child independent migrants is scarce. There is a great deal of heterogeneity in how migrants are defined and identified, and detailed information on how the child migrated is unusual. Development of international standards on how to measure independent child migration is a priority, and efforts to incorporate this definition into future censuses, labor force surveys, and multipurpose household surveys should be a priority for outreach. Further codifying independent child migrants into migrants who migrate for work or other purposes seems an even greater statistical challenge. Inferring causation and motivation in statistical data is a difficult challenge in general, and individuals are unreliable respondents about their motivation. Efforts to develop better statistics about the extent of independent child migration would do well to leave the problem of the motive for migration to researchers to consider on a case-by-case basis.
3. MIGRANT SUPPLY

A vast literature considers the determinants of child time allocation, but few academic studies explicitly connect the possibility of children migrating away from home to the problem of child time allocation. Children migrate for many reasons. When children migrate for work, the migration decision is obviously intertwined with the child labor decision at home.

The easiest way to think about child independent migration for work in the context of other child labor and child schooling decisions is to consider an agent who contemplates all of the possible activities in which his child may participate. The agent calculates his payoff in terms of his own welfare for all the possible activities in which the child might participate. In circumstances where the agent is not just the child, the agent's welfare depends on the child's welfare as well as perceived pecuniary and non-pecuniary returns to each of the activities. The agent compares his payoff over the set of possible activities and chooses the one that leaves him best off. Figure 1 is a simple graphical illustration of this idea. All of the options that would have the child migrate are bolded.

Figure 1: The Child Time Allocation Problem
Returns to schooling in this model, $R_H RH$ and $R_A RA$ for schooling inside and outside of the home community respectively, are understood to reflect the net returns to having the child in school (the pecuniary and non-pecuniary returns to education net of any associated costs). The net pecuniary and non-pecuniary returns to other uses of child time in each schooling state are denoted $W_H WH$, $W_A WA$, $W_O WO$. These net returns in each schooling state will be a combination of the net returns for each of the different activities in which the child participates. When children participate in multiple activities, the net return to child time in each of these activities must be equal. If this were not the case, then the agent can increases his returns by substituting child time towards the activity that provides greater return from the activity that provides lower returns. This observation allows us to treat the child as if she participates in just one activity from the list of activities listed to the right of each schooling node. Under this simplification, the agent will pick only one activity from the right of the node for any schooling state, and that activity will be the activity that provides highest returns to the agent under optimal child time allocation.

The agent decides whether the child attends school, migrates, and works by working backwards through Figure 1 (from right to left). The agent first computes the maximum payoff possible for each of the three possible schooling states. For each of the three possible schooling states, the agent will pick the activity that provides her the highest return. The agent compares the payoffs that she receives in each of the three schooling states. She chooses the schooling – work combination that offers her the highest payoff.

An important implication of the framework in Figure 1 is that it makes clear that we cannot a priori know what activity states are closest substitutes. For example, it could be that an agent sending his child to school in the home community is best off having the child idle. That is, for him, $R_H + W_{HI} RH + WHI$ is greater than $R_H RH + \text{Return from any other activity available in this state}$. Similarly, that agent's best option available when sending the child away for school could be to have the child work perform domestic work for her host. The agent's best option when keeping the child out of school could be to send the child away for work. Thus, the agent's problem is to compare $R_H + W_{HI} RH + WHI$ (schooling without work), $R_A + W_{AD}$ (schooling away with domestic work), and $W_{OW}$ (independent migrant for work). Suppose $W_{OW} > R_H + W_{HI} RH + WHI > RA + WAD$. The agent chooses to send the child away for work for a payoff of $W_{OW}$. A decline in the returns to being sent away for work would induce the agent to substitute towards another category in the "no school" node (perhaps to working outside of the family enterprise without migration and obtain $W_{OO} WOO$) or to schooling without work (and still obtain $R_H + W_{HI} RH + WHI$) but never to sending away for schooling with domestic work as $R_H + W_{HI} RH + WHI > RA + WAD$ still holds.

This framework should make clear that it is impossible to ascribe a single cause for independent child migration. That is, we cannot assert that an independent child migrant is migrating for work, as the precise motive for migration is simply that the payoff in the migrant state is greater than the alternatives. For example, suppose that the agent chooses the child to take school away and work away from the host. That is, $R_A + W_{AD} RA + WAO$ is the highest payoff available to the agent. Suppose that working outside of the family enterprise $W_{OO} WOO$ is the next highest available payoff ($W_{OO} > R_A + W_{AJ} WOO > RA + W Aj$ for all $j$ other than $OO$ and $W_{OO} > R_H + W_{Hj} WOO > RH + WHj$ for all $jj$). Would we say that the
child is migrating for work? The agent would not send the child to migrate if the work option were not available. However, without the availability of schooling away, the child does not migrate. So, should we say the child is migrating for schooling? Both perspectives are easy to justify. Asking respondents about motive for migration could easily elicit either answer. Hence, the usefulness and meaning of attempts to ascribe a single motive to independent child migration is suspect.

This problem of ascribing a reason for migration is apparent in seemingly less controversial settings. Suppose that the highest payoff available to the agent is to leave home to work independently. Figure 1 should make it apparent that the “cause” of the decision is not only that $W_{owW}$ is positive. The decision to send the child away independently to work was made because the payoff to that activity was greater than the other possible combinations in Figure 1. Thus, weak schooling options, poor employment alternatives, are all equally important as a motive for independent child migration.

This view of child independent migration recognizes it as one of the options in the family's child-time allocation process. This implies that existing research on how child time is allocated will be informative about the causes of child migration and the circumstances of working child independent migrants. However, there will be important differences.

A typical way to study child time allocation is to divide child time into broad areas of work and schooling. Children can be involved in household chores, in family farm or business, or can work as laborers in the market as wage workers. Children involved in market work are involved in income generating work either within or outside of the household. As mentioned in the discussion above, children can be involved in either one or a combination of several activities. For instance, a child can split his time between attending school and helping in household income by doing some income generating work outside of the household. Figure 2 shows child involvement in some of the major child-time allocation options by age for children aged 5-14\(^1\) and living in the 36 countries included in UNICEF's Multiple Indicator Cluster Survey 2 Project.

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\(^1\) As mentioned earlier, several consider children aged 15 and above as youth instead of children. This controversy in definition is present in the 36 countries that were included in the MICS 2 project as well. Because of this reason, children from many countries aged 15-17 were not included in the data. Age group 5-14 is chosen because it is the age group for which we have child time allocation data for all the countries.
Across these 36 countries, market-work participation rates increase with age for both boys and girls. The increase is substantive at age 10 for both genders. Work outside of the household is relatively rare below age 10, and becomes more substantive starting at age 10 for both boys and girls. At the same age, work without schooling starts to become more prevalent. It is important to note that the spatial distributions of various types of child work are different from each other. For instance, child participation in work outside household is more prevalent in areas where local child labor market is existent (for example, urban centers) and child involvement in work inside household is more prevalent in areas where local child labor market is non-existent or non-functioning.

In general, labor-market participation rates appear to be positively correlated with labor-force participation rates of children and therefore should be increasing with age. Child independent migration should be increasing in age as well since younger children have lesser means and resources necessary for independent migration. This implies a positive correlation between child independent migration rates and labor-force participation rates. However, causality could flow either way. Higher labor force participation rates might trigger child independent migration (for work) or higher incidence of child independent migration could trigger higher labor force participation among these children.

Figure 3 contains plots of labor-force participation rates and living away from mother rates estimated from four demographic and health surveys. The incidence of living away from one's mother is computed using the fertility method.
In all four of the countries in Figure 3, labor force participation rates increase with age more rapidly than does the incidence of children living away from their mother, although the two age trends are positively correlated. In Egypt, it is rare for a child to live away from their mother before age 15. In the three other countries, the incidence of children living away from their mothers begins to rise at earlier ages. The Egypt case illustrates one fundamental problem in the exercise herein: while the decision about migrating is intertwined with the child labor decision, migrants are typically older than the children under 15 that constitute the target group of most child labor studies.

This section subsequently reviews the parts of the literature on child time allocation that are apt to be salient when these additional child migration options are considered as parts of the child-time allocation problem (part A). In thinking about the link between work and child independent migration, some issues deserve special emphasis as they ‘pull’ children towards migration (part B).
A. Reasons for child work: The push factors for migration

As is evident in Figure 1, children work when the agent is better off with the child working than not. There is an enormous literature on child labor and child time allocation, reviewed in greater detail in Edmonds (2007). One obvious facet of child labor is that it is far more prevalent in poor countries than in rich. Any discussion of work should begin with the important influence poverty has in the decision to send a child to work.

1. Poverty motives for work

“It was poverty that made me come here. I wasn’t in school and I was suffering there so my senior brother brought me here. I did not want to come, but poverty forced me out. … No one influenced my decision. I decided myself to come to see if I could get work to support myself.”


Qualitative interviews of migrants or working children more broadly often emphasize the important influence of poverty on the decision to leave home or enter work. There is broad statistical support for the qualitative evidence that links work and living standards. Three-fourths of the cross-country variation in economic activity rates can be explained by differences in gross domestic product per capita (Edmonds and Pavcnik 2005). Case studies from poor countries also suggest a strong poverty-work connection. Edmonds (2005) finds that improvements in per capita expenditures in Vietnam in the 1990s can explain 80 percent of the decline in market work participation among children in families exiting poverty. The results from Edmonds, Pavcnik, and Topalova (2008) imply a third of India's decline in child labor in the 1990s can be explained by falling poverty.

Most directly, Edmonds and Shady (2008) report the results of a randomized treatment-control trial in Ecuador where poor families were randomly assigned a cash transfer equivalent to about one tenth of household income. They find large effects of the increase in income at school transition ages, especially for girls. In fact, for children most vulnerable to dropping out of school between the baseline and post intervention period, the increase in income appears to be spent entirely on direct schooling costs for these children. Because these children stay in school and do not enter the labor force, their family’s total expenditures decline. That is, an increase in non-labor income actually resulted in a decline in total family expenditures as families used the income to fund child schooling that they would not otherwise be able to afford. The foregone child labor earnings are actually larger than the amount of the transfer.

This surprising finding raises the question of why child time allocation is so responsive to poverty. The most prominent theoretical publication within economics on child labor is based on the premise that parents prefer their children to not to work (Basu and Van 1998). Preferences are likely an important part of the story as narrative account after narrative account reveals the importance of the question: “Can I afford for my child to not work?” Another prominent theory piece posits that credit constraints are also likely to be important (Baland and Robinson 2000). That is, poor households would choose alternatives to child labor given their income and the returns to all of the various activities available to children.
However, an inability to borrow against future income (implicitly or explicitly) causes decisions to be made based on resources available on hand. The distinction between credit constraints and preferences is important. With preferences, an agent will choose less child labor as incomes rise much like the agent will choose better quality food products or to purchase nicer consumption goods. With credit constraints, additional income allows the agent to make decisions that he would have liked to make at lower incomes. Short-term concerns just prevented the agent from choosing them. Other explanations for a strong poverty – child labor connection have been offered in the literature. Most prominently, many have posited that the returns to alternatives to child labor such as schooling increase with living standards (a better fed child is a better student), but preferences and credit constraints seem to be the two most prominent explanations.

Rigorous statistical studies on the child 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. Children migrate, because their parents cannot provide for their basic needs. They report that migration to street improves their access to income, food, clothing and other necessities. Sheikh Hasina’s (1989) discussion of street children in Bangladesh emphasizes another facet of the poverty – child migration connection. Not only do children migrate in order to provide for their own basic needs, but 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, a topic to which we return later.

The link between child independent migration and poverty is a bit more subtle 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. The 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 (2007) 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.

The credit – migration connection is similarly complex. Although credit constraints force families to make child labor and schooling decisions 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 (2007) 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 1. 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.
2. Insurance failures and work

One important correlate of poverty appears to be the prevalence of uninsured events. Bad health events, weather shocks, crop failures, or other unpredictable events can cause the family to take drastic action to cope with the shock. Child labor and migration help families cope with the inability of existing insurance strategies to buffer unexpected events completely. Assets can be used to buffer the effects of a negative shock, but poor households with few assets can neither put up reasonable collateral for loans nor sell off their assets to overcome the shocks. Sending children to work during difficult times would then be a rational choice for households to smooth their consumption.

Similarly, sending a child away for work would present a way for households to diversify their income against possible shocks. McKenzie (2007) argues that imperfect credit and insurance market in developing countries create a rationale to migrate. Migrants can often help families during crises by sending in remittances. Yang (2008) documents the important role remittances played in how Philippine families coped with the Asian financial crisis.

Below we examine some of the empirical evidence that assess the relationship between shocks and child time allocation and migration.

a. Agricultural shocks

Most of the families that engage in child labor largely depend on agriculture for a major source of their income. Unanticipated shocks on agricultural productivity introduce great variability in household income. In this section, we examine how households adjust to these shocks and how they affect child-time allocation and migration decision in absence of a proper insurance and credit markets.

Understanding Children’s Work, UCW, study on the determinants of child labor in Guatemala suggests that child labor serves as a coping strategy for household to cope with collective shocks such as flood, earthquake, and draught. The study finds that children from households exposed to these collective shocks are more likely to work and less likely to attend school only. In a similar study in Tanzania, Beegle, Dehejia, Gatti (2006) correlate self-reported crop shocks with changes in child labor. They observe a significant increase in market work in households that report experiencing poor harvest, and a fall in child work when households recover from the bad harvest. They find the child labor response to agricultural shocks to be larger amongst households with fewer assets.

Agricultural shocks are highly correlated with migration as well. Sending a family member to urban areas where agricultural shocks have less effect on income is one way for families to cope with the shock. Families might as well choose to send members to other rural areas where the same shock is unlikely to affect agricultural productivity in both areas. Rosenzweig and Stark (1989) observes that in rural south India, farm households with variable profits tend to send their daughters in longer-distance marriage cum migration in order to facilitate consumption smoothing and mitigating income risks between the two families.

Though child time allocation is associated with agricultural shocks, the effect might be different by type of shocks or by gender. Guarcello, Kovrova, and Rosati (2007) analyze the differential impact of agricultural shocks in child time allocation. In their study of rural
Cambodian villages, they find that crop failure is most damaging in terms of child labor and school attendance. Drought, though similar in nature is far less relevant, and flooding does not seem to have any significant impact on child time allocation in terms of schooling and work. Why there would be such different household responses to similar shocks, as in the crop failure and drought examples, is still unresolved.

The literature on adult migration tends to emphasize the important influence of crop failures in the origin areas. Halliday (2008) explores the link between migration, shocks and intra-household labor allocation in El Salvador. He finds that adverse agricultural productivity shocks increases male migration to the United States. An earthquake seemed to reduce female migration but had little significant impact on male migration.

Though not formally developed, it seems likely that heterogeneity in the response of households to shocks that have similar effects on income may owe to how the shock affects the return to various tasks in the migrant origin area. Consider the impact of a flood on migration and child labor in the model of Figure 1. The flood may have wiped out many crops, lowering the return to working in the family farm or business. However, reconstruction may increase the employment opportunities in the local labor market, inducing fewer children to migrate. Alternatively, the loss of income may have made financing migration more difficult.

b. Other labor market shocks

Most households, even in rural settings, depend upon more than one source for their income. Labor market shocks have adverse effect on household income. An unexpected loss of labor market income, especially in a setting with negligible unemployment benefits, creates considerable losses in household incomes. As with agricultural shocks, child labor and child migration appear to be rational responses to mitigate income shocks in these cases.

For example, Duryea, Lam, and Levison (2007) use a longitudinal employment survey from urban Brazil to consider the impact of parental unemployment on child labor. By comparing households in which the male head becomes employed during a four-month period to a household where the head is continuously employed, they find that unemployment shocks increase the probability that a child enters labor force by as much as 60 percent. The increased child labor force participation is also associated with decreased probability that the child attends school. However, they do not observe changes in labor supply when the shock is anticipated. Hence, they conclude that child’s labor supply in part compensates for the lack of unemployment insurance or benefits. As was the case with child labor response to agricultural shocks, children often do not quit working when the shock is complete. The child response of work, especially for girls, is often permanent even though the shock that triggered it is temporary.

c. Health shocks, including parental death

“I am the oldest in a family of six children. My father was afflicted by various diseases. He soon became disabled and could not support us. It was impossible for my mother to manage the family on her own. When I was ten years old, my mother sent me to Dhaka with a woman. This
woman’s business was to take women and children from the village and place them in people’s homes in Dhaka as domestic help.”


Health shocks and death can cause massive loss in income for a family and severe disruptions to the child’s home environment. Untimely parental death or illness often causes children to assume greater role and responsibility in the household. It might involve withdrawal from school and entering the labor force or assuming greater roles in the household in order to compensate for the parent. For some children like Fatima, migration may follow directly in reaction to parental illness and death.

Empirical studies have shown a clear negative relationship between parental death/orphanhood and child schooling. Case, Paxson, and Ableidinger (2004) study orphanhood and school enrollment in 10 Sub-Saharan African countries by comparing children living within the same household who differ in whether they have had a parent die. They find that orphans are less likely to attend school than non-orphans with whom they live. Another study by Evans and Miguel (2005) follows a panel of 20,000 rural Kenyan children and examine how their school participation changes with parental death. They find a substantial decrease in schooling following parental death and some decline prior to the death. However, the effect of parental death and orphanhood on child work is not very clear. Guarcello et al (2004) use the same sample as used by Case et al. (2004) but cannot draw generalities about the correlation between parental death and various forms of work. The reason for this is obvious in Figure 1. Sometimes, parental death will make the child’s economic contribution at home more important. Sometimes, the loss of parent will make the child’s domestic chores more critical to the survival of the family. Other times, the loss of a parent will make the child’s potential income contribution more salient. Too often, the loss of a parent may undermine a family’s ability to support its child at home.

Studies on child migration have pointed out that parental ill health and death can lead to the migration of children. Evans (2005) observes that many children orphaned by AIDS in rural Tanzania migrate to urban centers to work in informal sectors. He presents this phenomenon as a survival strategy for children when families and communities are either unable or unwilling to support them. Similarly, Young and Ansell (2003) find that many children in Southern Africa migrate when household members fall sick or die from AIDS. Child migration for work is not always away from sick family members. Young and Ansell emphasize that some children are sent by their families to assist distant relatives who are affected by AIDS. They think that most of such child migrants end up in urban streets after the relative’s death.

An issue closely related with orphanhood is that of child fostering where children are sent away to live with a foster family. In a study of child fostering in Burkina Faso, Akresh (2004) tracks and interviews both sending and receiving households participating in fostering exchange. He compares fostered children with their non-fostered biological siblings and finds that fostered children are 3.6 percentage points more likely than their biological to be enrolled in school following fostering. He also finds that compared to children from non-fostering households, host siblings, biological siblings, and foster children all experience
increased enrollment after fostering exchange. He concludes that fostering is an effective strategy for poor households to cope with adverse shocks.

d. Bondage and indentured servitude
Functioning credit markets would ameliorate the effects of insurance failures, but in poor settings, credit market imperfections may create child labor where it would not exist absent the credit failure.

The important role credit constraints play in child labor and schooling is evident in Edmonds’s (2006) study of the effect of the timing of receipt of an old age pension in South Africa. He observes large declines in work and increases in schooling in families that receive pension income relative to families that are about to receive pension income. These two types of families have similar permanent incomes but differ in the timing of their income. Functioning credit markets should make the timing of anticipatable income irrelevant to child labor and schooling decisions.

Credit failures may induce some desperate families to involve their children in bondage and servitude in order to access credit or circumvent liquidity problems. Evidences of child bonded-labor can be found in various sectors in many developing nations, especially in South Asia. Some examples of well-studied prevalence of child bondage exist in Nepal and in India. Edmonds and Sharma (2007) discuss one system of debt-bondage prevalent in western plains of Nepal where generations appear trapped working for a small set of landowners. While the bonded do not appear to migrate, their daughters (who are unlikely to inherit an agricultural debt) appear to migrate away from the areas where bondage is most prevalent.

We have discussed how credit access may actually increase migration through providing financing. Thus, the anticipated effect of better credit access will depend on whether agents prefer children to migrate or not. In fact, in a companion paper to the South African study discussed above, Edmonds, Mammen, and Miller (2005) observe substantive changes in living arrangements and the migration of older family members associated with receipt of the pension income.

Sometimes the lack of access to credit and the family’s inability to finance migration causes children to migrate in vulnerable circumstance. Ravi Srivastava (2005) discusses bonded-labor in agriculture, brick kilns, stone quarries and mines, power looms and cotton handlooms in various parts of India. Most of these sectors have a high involvement of migrant children and we will discuss in greater detail on these sectors in later sections. A common narrative found in Srivastava’s and similar studies is that the parents of migrants receive an advance on the child’s wage and the child’s employer takes measure to make sure that he is able to recoup this investment from the child’s labor.

3. The availability of quality alternatives to work
The framework of Figure 1 makes it clear that the best use of child time depends on what options are available to children. A number of studies have emphasized the importance of schooling access, school costs, school quality, and schooling inputs in work decisions. These are likely similarly important for child migration for work as it is just one type of activity available to the child.
a. School access
When schools are far or unavailable, children have less alternative uses of their time (the top bullet of Figure 1 is unavailable). Typically, children either migrate to other places with educational opportunities (most relevant for boys) or work. Migration for education usually occurs when a child has completed primary (or secondary) education and schools that provide higher education are not near. However, when there is a complete lack of schools, children are more likely to start working. Only a few rigorous assessments regarding school access and child migration have been done.

In general, school access seems to increases child schooling and possibly reduce child labor. Duflo (2001) studies schooling and labor market consequences of a massive school construction program in Indonesia. She finds that constructing primary schools leads to an increase in education and ultimately increased returns to education. Similarly, Foster and Rosenzweig (2004) argue that school construction accompanying the green revolution in India facilitated increased schooling for landed households but increased the demand for child labor in landless households.

Kondylis and Manacorda (2006) use a different measure of school access apart from new school construction. They study the impact of travel time to school on child time allocation in rural Tanzania. They observe that children with longer travel times tend to specialize in either schooling without work or work without schooling. This result highlights the claim from the discussion above about Figure 1 that the exact ordering of alternative uses of time cannot be predicted. In their case, the postulate that for children who attend school in more remote locations, other forms of work imply foregoing too much of the benefits of education while education is also too costly in terms of travel time to complement some forms of work.

The effect of school access on child migration is, however, not so 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.

b. School costs
Even when schools are available, costs of attending school can have significant bearings on child time allocation. When schooling is expensive, work and/or migration becomes a better alternative than attending school. Several studies document an association between the mitigation of school costs and schooling (for example, Duflo et al 2006). In rural Pakistan, Hazarika and Bedi (2003) observe that children are more likely to work in communities where schooling costs are higher. Shafiq (2006) observes similar association in Bangladesh but only for boys. Similarly, Edmonds, Pavcnik, and Topalova (2007) argue that avoidance of school costs explains that child labor-schooling-poverty association in India. A direct connection between schooling costs and child migration has not been documented in the existing literature to our knowledge. However, schooling costs will influence the net return to schooling and should affect migration in the same way as any alternative use of time in Figure 1.
c. School quality

When school quality is poor, students are less likely to attend school (the returns to education are lower in Figure 1). Case and Yogo (1999) document a correlation between pupil-teacher ratios and schooling attainment in South Africa. Rosati and Rossi (2007) study the impact of conditional cash transfer and school quality improvement program on child labor and school attendance in Mexico. School quality improvement program, CONAFE, provided updated audiovisual technologies (like computers) and equipments (such as desk, bench, and chairs) to schools, learning materials (such as notebooks, pen, and pencils) to students, and training to educational staff. They find large effects of CONAFE on child labor for secondary school age children.

Poor school quality might be reflected in terms of poor infrastructure facility, higher pupil-teacher ratio, lack of qualified teachers, and neglect and abuse from teachers. Apart from the direct impact quality has on the returns to education, low quality might facilitate students losing interest in studying which further aggravates the problem. Faced with lower returns to education and lack of interest in school, children might find a better used of their time by working (especially when the households are poor) or by migrating elsewhere for better school or for work.

A rigorous statistical study exploring the relationship between school quality and child migration does not appear to exist, but the qualitative evidence seems consistent with the idea that school quality influences migration for work decisions. 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. Work and employment opportunities

Child time allocation is heavily influenced by employment opportunities available to the child. The availability or lack of child employment opportunities might determine how much, where and in which sector the child works. A lack of child labor market might push child towards more of household work or work in household farms or might cause them to migrate and find employment opportunities away from home. Similarly, seasonality of employment opportunities will tend to change child-time allocation for the certain periods only. In this section, we examine some of the study done on how employment opportunities available to children influence child-time allocation and, possibly, child migration.

a. Inside the household

Most working children work at home. Table 5 is an example of the allocation of child time by age and gender taken from the most recent labor force survey in Nepal. Boys 5-9 work on average 4 hours per week in Nepal. Girls 5-9 work 7 hours per week. Boys 15-17 on average work 23 hours per week while girls work nearly 40. We have chosen the Nepal Labor Force Survey for an example, because it collects comparable time allocation data for 16 different types of activities. The first 8 activities listed are generally consider economic activities while the last 8 are not (total hours spans both). Wage employment and own business employment
often take place outside of the child's home, but all other activities listed take place within the child's family or its businesses.

Table 5: How do children spend their time? Evidence from the 1999 Nepal Labor Force Survey

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th></th>
<th>Girls</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age 5-9</td>
<td>Age 10-14</td>
<td>Age 15-17</td>
<td>Age 5-9</td>
</tr>
<tr>
<td>Total Hours Worked in the Last 7 Days</td>
<td>4.34</td>
<td>14.16</td>
<td>23.25</td>
<td>7.36</td>
</tr>
<tr>
<td>Share of Hours by Activity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wage job</td>
<td>0.01</td>
<td>0.09</td>
<td>0.22</td>
<td>0.01</td>
</tr>
<tr>
<td>Own Business</td>
<td>0.01</td>
<td>0.04</td>
<td>0.10</td>
<td>0.00</td>
</tr>
<tr>
<td>Agriculture</td>
<td>0.72</td>
<td>0.77</td>
<td>0.64</td>
<td>0.56</td>
</tr>
<tr>
<td>Milling &amp; Food Processing</td>
<td>0.00</td>
<td>0.00</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Handicrafts</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Major Repair / Construction</td>
<td>0.00</td>
<td>0.00</td>
<td>0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>Fetching Water</td>
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<td>0.02</td>
<td>0.02</td>
<td>0.03</td>
</tr>
<tr>
<td>Collecting Firewood</td>
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<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>Other Economic Activity</td>
<td>0.00</td>
<td>0.01</td>
<td>0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>Cooking / Serving Food</td>
<td>0.01</td>
<td>0.02</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>Cleaning</td>
<td>0.02</td>
<td>0.03</td>
<td>0.02</td>
<td>0.08</td>
</tr>
<tr>
<td>Minor Household Repairs</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>Shopping for Household</td>
<td>0.00</td>
<td>0.01</td>
<td>0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>Caring for old or sick</td>
<td>0.00</td>
<td>0.00</td>
<td>0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>Childminding</td>
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<td>0.03</td>
<td>0.01</td>
<td>0.27</td>
</tr>
<tr>
<td>Other Volunteer Work</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Source: Authors’ calculation from the 1999 Nepal Labor Force Survey.

For both genders and at all ages, a majority of child time is spent in agriculture on the family farm. In general, agriculture is responsible for a smaller share of total hours for girls. In Nepal, girls do not work substantively less in own-farm agriculture. Girls spend more time in other activities, especially cooking and cleaning. Thus, girls work more hours and spend a smaller fraction of their total hours in agriculture. Childminding is an important component of total hours worked at very young ages, but its significance declines with age. Wage employment rises in prominence with age for older children, especially boys. It is unusual for boys under 10 to work in wage employment while wage employment is more than a fifth of total hours for boys 15-17. Self-employment in a child's own business also rises in prominence with age for boys. It constitutes one tenth of total hours worked for boys 15-17.

If most working children do so at home, then whether children work will be influenced by availability of productive household assets like land, livestock, and poultry. For example, Cockburn (2000) shows that in Ethiopia, some assets like land and livestock increases child labor whereas others like oxen, ploughs reduces it. Using data from Botswana, Mueller (1984) documents that the more productive capital the household has, the more productive work its children perform, but the assets prevalent in her data are relatively modest and more apt to be the sorts of simple and light assets that Cockburn found to be complementary with child labor.
The availability of productive assets in families should reduce the attractiveness of child migration. 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, in their study of child migration in households of Bihar and Uttar Pradesh of India, Edmonds and Salinger (2007) find little clear association between household working capital (household farm ownership) and child migration. Similarly, Iverson (2002) also finds that land holding does not have a significant impact on child autonomous migration in southern India.

Access to basic facilities, apart from household assets, can influence child-time allocation and migration decisions. Children are active in household chores, and often their time is the most elastic to the family’s domestic needs. For instance, if a household has water supply in its premises or within the house, then fewer work hours are required to procure water necessary for household purposes compared to a household which has to travel to a public water facility to get water. In such cases, children are more likely to be fetching water in households with less access to water facility. An empirical assessment of this has been done by Guarcello, Lyon, and Rosati (2004) from their study of five countries – El Salvador, Ghana, Guatemala, Morocco, and Yemen. They find that access to water increases the number of children attending school and reduces the number of children involved in economic activity or those who are idle (neither attending school nor working). They find the effect of access to water larger in rural areas than urban areas. An explicit link between migration and domestic work is central in much of the literature that posits a connection between parental health and migration discussed above.

b. Outside the household

The child’s outside employment opportunities are important in determining child time allocation between work and schooling. If plenty of employment opportunities exist in local labor market, then market wages will be higher. Child and adult labor are typically treated as substitutes since children often work by a parent’s side, but they could also be compliments if children perform distinct tasks. When adult and child labor are substitutes, higher child wages will also imply higher child wages. When adult wages are higher, household income increases and this seems likely to put a downward pressure on child labor. However, when child and adult labor substitute, increases in adult wages could encourage child labor and deter schooling by making work a more attractive alternative to the agent. In either case, increases in local labor demand would reduce child migration for work as they can save the costs of migration by working in local labor market. The only exception to lower migration from more employment opportunities outside of the household would be if additional income helped finance migration, overcoming binding credit constraints that limit migration.

The effect of increases in employment opportunities outside of the household on child labor and schooling depends on whether the impact of more lucrative employment opportunities exceeds the influence of higher adult incomes. Kruger (2004) observes that during the coffee boom in Nicaragua, there is an overall increase in market work, especially so in poor households in coffee producing areas. Kruger (2007) finds similar results in her study of the
effect of coffee boom in child labor in Brazil. She emphasizes that when booms are expected to be transitory, households seize temporary employment opportunities by employing children, especially if it is easy to make up for the lost schooling time in the future. In contrast, Edmonds and Pavcnik (2005) find that increases in rice prices in Vietnam are associated with declines in child labor as families take advantage of higher family incomes despite rising wages. One explanation for the difference between the rice price evidence and the coffee price evidence is that the coffee booms were expected to be transitory while the rice price changes in Vietnam owed to changes in Vietnam's food policy that many would have expected to be long lasting.

The idea that families respond differently to transitory versus permanent changes in employment opportunities is consistent with recent evidence from the broader Brazilian labor market. Manacorda and Rosati (2007) use micro data from the Brazilian PNAD between 1981 and 2002 and observe that when local labor demand is stronger, child employment falls and schooling increases. Children work less when there are more employment opportunities available in their State. This implies that children work more when there are fewer employment opportunities in the adult labor market, and the study by Duryea, Lam, and Levison (2007) mentioned above finds that Brazilian children work more when their parent enters unemployment. This Brazilian evidence implies that the relationship between child employment and local labor markets / unemployment depends on both the available child wage and family incomes.

Fafchamps and Wahba (2006) add an additional insight to this discussion of the relationship between employment opportunities and child labor. Since most children work in their home, the extent of household specialization will influence how much children work. Using data from Nepal, the document that children are more likely to attend school and not work as specialization increases with urban proximity (places with stronger labor demand). They find that child labor within the household falls with urban proximity, but child labor outside household increases. The net change is towards less work with urban proximity as the declines in within household work are greater than the rise in outside of household work.

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. These case reports are consistent with the hypothesis that increased labor demand in sending areas would prevent child migration, but a rigorous statistical test of this hypothesis has yet to be carried out.

The Vietnam Living Standards Survey from 1998 presents an unusual opportunity to look at the relationship between child migration, child labor, and adult unemployment rates. We view adult unemployment rates as a proxy for the intensity of labor demand relative to supply. Figure 4 shows the relationship between adult male unemployment rates in a province and child labor market participation in the same province. There is a small negative correlation: children are less likely to work in Vietnamese provinces with more adult
unemployment. However, the correlation is weak. There is considerable variation in child labor market participation rates when unemployment rates are around 4 percent.

**Figure 4: Child Participation in Market Work and Adult male Unemployment in Vietnam**

![Graph showing the relationship between child participation in market work and adult male unemployment in Vietnam.](image)

*Source: Authors’ calculations using the Vietnam Living Standards Survey 1998. Each point in the plot represents a province.*

The Vietnam Living Standards Survey allows us to use both the roster method and the fertility survey method to identify the prevalence of children living independently. To review, the fertility survey allows us to gauge the prevalence of children living away from the community and the roster method produces a measure of how many children are living in the locality without parents. Figure 5 shows the association between the prevalence of independent child migrants and adult unemployment rates in Vietnam.

We expect children to migrate away from areas with more adult unemployment. This is not transparent in the Vietnamese data. The left side of Figure 5 uses the fertility method to calculate the prevalence of children who do not cohabitate with their mothers. The correlation is weak but slightly negative. The higher the adult unemployment rate, the less likely the child is to live away from its mother. The lack of a strong relationship is a good illustration of how complicated the decision to migrate is in reality. Unemployment rates will be correlated with incomes, remoteness, as well as levels and types of economic activity. The only implication that can be clearly drawn from Figure 5’s left panel is that all of these correlates of adult unemployment rates can exert different, even countervailing, influences on the child migration decision.
We expect children to migrate to areas with more employment. This is not apparent in the Vietnamese data pictured in the right panel of Figure 5. Children are more likely to be living in a province without any parents if there is more unemployment in the area. Part of this pattern probably owes to the fact that adult unemployment is more prevalent in urban areas where independent children are also more prevalent.

The example from Vietnam highlights two key points. First, there is no simple relationship between labor demand and the child migration decision, just as there is no simple correspondence in the child labor literature. Second, working from simple correlations, whether computed from statistics or drawn for qualitative interviews, have the potential to misleading, as the number of confounding influences can be very large for a decision as complicated as the child migration decision.

One important point that is buried within the figures from Vietnam concerns gender. The importance of local employment opportunities in migration opportunities will vary with gender as employment opportunities in both origin and destinations vary with gender in many societies. This point is salient in Kielland’s (2008) study of Benin. Kielland observes that agriculturally intensive localities (with subsistence farming, cash crop farming, livestock herding) leave girls with fewer independent opportunities and hence are associated with greater female migration. Kielland documents that these attributes are mostly uncorrelated with boys’ migration. 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.

c. Seasonality

Most child labor in developing countries occurs in agricultural sector. Labor demand in agricultural sector spikes up at some point of the year during harvest times and is low at other times of the year. Therefore, in agricultural communities, one would observe high child labor participation in market work during harvest times but mostly domestic work at other times of the year. Since most of available surveys are taken at one particular point of time, they fail to capture the seasonality in child labor and hence, systematic evidence on the dynamics of child labor is extremely rare. Seasonality of child labor could also be one of the factors that explain the presence of substantial amount of idle children in surveys (Cigno, et al 2003). The relationship between seasonal patterns of labor demand and child migration is complicated because there is both seasonal variation in employment opportunities and incomes. Households that depend highly on income from agricultural labor would also face seasonality of 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. Giani (2006) documents increasing seasonal migration of children to Dhaka from rural Bangladesh in order to cope with economic hardship in their origins. Similarly, Baas (2008) finds that many seasonal migrants (including children) migrate during autumn and winter (when weather is cold and water scarce) to work in sugarcane plantations in Bolivia, and return to their origins during rainy seasons to work on their own farms. Quiroz (2008) documents that recruiters go to villages to recruit workers for seasonal work in coffee plantations in Guatemala. Entire families, including children, migrate to the plantation. Not all seasonal migration is related to farm - Bastia (2005) also finds seasonal migration to be customary in urban-rural migration of Bolivian migrants.

Seasonality in migration could also be exhibited by school-going children. Children, especially older age groups, are likely to work during school holidays to make some money for their personal, schooling, or family expenditures. In a study of child labor in small scale mines in Peru, Ensing (2008) finds higher influx of migrants during school holidays as students flock in to earn quick money from gold mining. Bastia (2005) also documents seasonal migration of students (along or without their parents) during their school holidays in his case study of Bolivian migrants.

The Nepal Labor Force Survey is useful to illustrate the extent of seasonal migration among children in that country, because it is collected to be representative for each of Nepal's three main seasons. Migration is the Nepal Labor Force Survey is collected by a question of whether a household member has living away from the household in the last 12 months. Hence, all of the children identified in Table 6 are temporary migrants. Temporary migration is largest during the rainy season in Nepal for boys. Girls migrate more during the lean winter months. The higher levels of migration of boys during rainy seasons may reflect that boys are better able to take advantage of employment opportunities outside of their own community in
Nepal (as girls rarely work outside of their home). The sending out of girls winter months may reflect coping mechanisms for dealing with the lean winter months. This discrepancy among seasonal migration patterns for boys and girls lends support to the idea that families use seasonal migration to diversify their income and as a coping mechanism. However, it is clear that more needs to be done to understand seasonal patterns in migration.

Table 6: Estimate of Migrant* Children in Nepal by Season and Urban Rural

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rural Nepal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rainy Season</td>
<td>61460</td>
<td>36518</td>
<td>24942</td>
</tr>
<tr>
<td>Winter Season</td>
<td>57996</td>
<td>27135</td>
<td>30860</td>
</tr>
<tr>
<td>Dry Season</td>
<td>38740</td>
<td>15585</td>
<td>23154</td>
</tr>
<tr>
<td><strong>Urban Nepal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rainy Season</td>
<td>12811</td>
<td>7440</td>
<td>5371</td>
</tr>
<tr>
<td>Winter Season</td>
<td>10762</td>
<td>5321</td>
<td>5442</td>
</tr>
<tr>
<td>Dry Season</td>
<td>9163</td>
<td>6627</td>
<td>2535</td>
</tr>
</tbody>
</table>


Note: *Migrant children defined as household members aged 5-17 living at least one month away from the household in the last 12 months.

5. Sibling interactions

“… I wanted to study but I can’t because I have a lot of siblings…. I took pity on my father, and I would just add to his burden if I continued studying. Ain’t I right? It’s because I have a lot of brothers and sisters. He needs to put them to school. Can you imagine if I insisted on continuing my studies? I had finished grade six. So I felt it was my siblings’ turn to have some education. I would just work. In that way, I could also be of help to my siblings, to my father. My father need not be the only one looking for money. It’s difficult to be poor.”

-Lucy, Child Migrant in Phillipines. (Camacho and Zenaida 2006: p.26)

Our model of time allocation is written from the perspective of one child. As Lucy indicates, siblings and household structure can influence the perceived returns to many of the alternative uses of child time listed in Figure 1. Sibling cohort size affects the marginal utility of income, the household’s demand for domestic services, and the availability of labor to the family farm or business. Sibling composition (birth order, gender mix, and spacing) is also substantive. Higher birth order children will have older parents who may be wealthier, be more experienced at raising children, or feel more altruistic towards their children. Lower birth order children grow up in more adult environment, and have comparative advantage over younger siblings in the wage labor market and in household production. Higher birth order children grow up in a household where competition is more for scarce household resources. These factors affect child time allocation between siblings regarding schooling, work or migration.

In fact, sibling interactions are frequently emphasized in studies of independent child migration. Parish and Willis (1993) study the role of eldest girl in Taiwanese households. They argue that she helps with the schooling outcomes of their younger children by caring for younger children and by bringing additional income to the household through wage
employment. The story of Lucy matches with this explanation as she intends to help her other siblings by bringing in additional income. However, Parish and Willis establish in their Taiwanese case that a girls’ most important contribution appears to be to marry young.

The idea that older siblings support their younger siblings is quite prominent in the literature. Edmonds (2006) finds that older boys and girls are more likely to work and less likely to attend school than their younger siblings. He argues that this pattern may owe to the differences in comparative advantage in household production. He also finds that oldest girls especially spend more time working in domestic work when there is larger number of younger siblings. Older siblings may provide important, direct financial support to siblings as Manacorda (2006) documents in his historical study of early 20th century U.S.

Sibling composition, especially birth order and spacing, can have an important role to play in child migration decision too beyond their influence on marriage. Edmonds and Salinger (2007) observe that migrant children tend to be older on average than children who do not migrate and tend to be old amongst siblings too. Kieland and Sanogo (2002) observe that household size reduces migration overall, but having many siblings increases the chance of urban migration for girls in rural Burkina Faso. Punch (2002) argues that birth order plays an important role in child migration decision. She argues that older siblings are much more likely to migrate at a young age compared to their siblings. Condition 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.

B. Reasons for child migration: the pull factors of child work
The framework of Figure 1 makes it clear that children will migrate when the return to migrating is greater than that available by not migrating. They will migrate for work when that is the best option available. "Push" factors influence the return to alternative to migrating for work. This section on "pull" factors focuses on issues directly related to the return available to the child when she migrates in order to work. One striking point, obvious in the review, is that there is very little evidence directly on child migration here. Hence, we extrapolate from the framework, case studies, and the adult migration literature.

1. The search for more lucrative employment opportunities
As children are drawn out of school or idleness by alternative uses of their time that are more lucrative, so they may be drawn away from home as well. It is conceptually important to distinguish between the draw of a better job versus the hope of a better job as the policy levers that might influence a “hope” could be very different from those that would influence the existence or promise of a better job.

   a. Higher promised wages
Higher wages and therefore income lures many children to migrate to work in urban areas and even 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.

Urban-rural wage differential for adult wages has been established empirically. Adults working in urban areas earn greater wages than those working in rural areas. However, this comparison is typically made comparing individuals from different backgrounds, executing distinct tasks. Child wage employment is sufficiently rare that most surveys, which have small sample of children reporting a wage income, are not able to answer the question of whether child wages are higher in cities than outside cities. Child labor survey reports in general do not report child wages. Studies of child migrants with wage data from before and after migration do not appear to exist. Hence, we do not know whether independent child migrants receive higher wages when they migrate than if they had stayed behind. The few reports that discuss the urban-rural disparity in child wage level provide contradicting pictures of the disparity. In the Child Labor Survey in Panama, Cornejo et al (2003) find rural child wages to be considerably lower than the urban child wage for paid working children. Median monthly income for urban working children is 80.7 Balboas compared to 59.5 Balboas in rural areas and 53.0 Balboas in Indigenous areas. Similarly, in Nicaragua, Mayra Calero Silva (2003) finds that 61.7 percent of urban paid working children earn less than C$ 600 whereas 74.2 percent of the rural children earn less than this amount in a month from the National child and adolescent survey in Nicaragua. Whereas, in Bangladesh, though average urban child wages are slightly higher, the difference is just 3 Taka per week (Bangladesh Bureau of Statistics, 2003).

However, some child labor force surveys point towards the other direction. That is, urban wage for paid working children can be lower than rural wages. This appears to be true in Ghana (Ghana Statistical Service, 2003). About 66.2 percent of the paid urban children earn wage incomes in the range of 1 – 10,000¢ compared to 63.4 percent of paid working children in rural areas. Similarly, 7.1 percent of rural paid working children earn more than 41,000¢ compared to only 3.8 percent of urban children. Evidence from Kenya child labor survey also shows that urban working children are actually underpaid compared to their rural counterparts (Kenya Central Bureau of Statistics, 2001). More than 70 percent of the paid urban working children earn a wage of less than 900 Kenya Shillings per month compared to only 57.7 percent of rural children. Similarly, 8.1 percent or rural children earn a monthly wage income greater than 2000 Kenya Shillings compared to only 3.5 percent of urban children.

The challenge in comparing these urban-rural wage differentials for children is more difficult than for adults. With adults, there is the fundamental problem that the selection into wage employment is different between cities and the countryside. This selection is more acute for children as participation rates are much lower (lower participation rates imply greater scope for selection). Moreover, the relative rarity of wage employment for children means that estimates of wages by location are generally less precise for children than they are for adults. Children also appear to receive more of their compensation in-kind than do adults. Thus comparing child wages between localities is extremely difficult.

Apart from the labor force surveys (which do not focus on the migration aspect of children due to wage differentials), case studies and interviews of children working in certain sectors
in urban areas, rigorous evidence on the relationship between higher expected wages and migrant flow is almost absent. Here, we examine some of the literature in adult migration regarding the relationship between wages and migration.

In the classic Harris-Todaro (1970) model, urban and rural wage differential cause people from the rural areas to migrate to the urban areas. Individuals migrate until wages equalize, but if something prevents urban wages from falling to rural levels, then expected wages will equalize and there will be unemployment in urban areas.

Few empirical studies find that wage differentials explain much of the heterogeneity in migration patterns. For example, Barro and Sala-i-Martin (1992), in their comparison study between the US and Japan, find that the reaction of migration to income differential is rather slow. They find a 10 percent differential in income per-capita raises the area’s population growth by only 0.26 percent. In a more direct assessment of the relationship between real wage differentials and migration, Antolin and Brover (2001) observe that, in Spain, the impact of real wage differentials on migration is opposite the expectation that wage differentials encourage migration from low wage regions. They find strong support that people tend to leave from high real wage regions. As a possible explanation, they posit that the regional wage is an overly aggregated measure to be relevant for the individuals. Unfortunately, they cannot disaggregate this in their data.

Unemployment also appears to do a poor job of explaining variation in migration (for example, Pissarides and Wadsworth, 1989; Greenwood, 1975; Hughes and McCormick, 1989). In a similar study, Antolin and Brover (1997) find that regional unemployment differentials in Spain fail to explain migration on its own. They find that higher than average unemployment in the individual’s region will only have a positive effect on the probability of migration if the person is a non-registered unemployed but will have significant opposite effect if he is registered. In a similar observation in the US, Da Vanzo (1978) finds that unemployment differentials are relevant only for the unemployed persons. These empirical studies suggest that regional characteristics, on their own, are not an important determinant of migration. A richer array of individual characteristics and expectations, and their interactions with regional variables, seems to be more crucial in explaining migration.

b. Speculation – the hope of a better job

The hope of a better job might affect one’s migration decision in a different way than does existing employment opportunities and wage differentials. A lack of employment opportunities and other constraints in the origin might encourage working children to move out in hopes of a better job. Similarly, misinformation or the attraction of city life might factor in people’s decision to migrate or send their children towards urban centers with hopes of finding a better job.

Numerous studies of migrant working children report that they migrated ‘looking for a better job’ in the urban areas. Similarly, 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. Children in this study migrated with the recruiters with hopes of earning better in Argentina and were often in vain. Pearson (2006) also documents that children often
migrate to urban Thailand in hopes of better jobs but often end up with worse jobs that in their origins.

c. Training and apprenticeships

“I dropped out of Primary 2 because my parents couldn’t afford the school fees. I’m not doing anything at the moment, but I want to become a seamstress. I’d like to do my apprenticeship in Takoradi because it’s not too far away.”


As Akos mentions, training and apprenticeships are one of the reasons why children migrate for work. Trainings and apprenticeship opportunities provide children with a way to learn valuable skills and to build up networks and contacts for future career as well as develop a gateway to enter labor force. Trainings and apprenticeship, however, are more likely to be centralized in urban areas and for poor families sending a child away for training and apprenticeship might have huge opportunity cost. Especially when families are credit constrained, they might chose to send their children to work in local labor market or send them away for work rather than an apprenticeship (with lesser pay at present). In urban context, where households are not credit constrained and are relatively well off, they might choose to send their children for a training or apprenticeship so as to maximize their future streams of earnings. Kok (1997) finds similar pattern in his study of historic youth labor migration in the Netherlands. Kok observes that in cities, children whose fathers were skilled worker were most prone to migrate. She argues that these parents had necessary contacts, information, and some money to find useful and interesting job or apprenticeship in another town. Kok observes similar pattern amongst merchant and elite families.

d. Transport and Search Costs

Conventional wisdom tends to assume that children are more likely to migrate from remote areas. However, remoteness itself may deter migration. The return to working away from home depends on both the wage at the child's destination and the cost of getting to that wage. This "cost" includes both transport costs and any additional search costs incurred in order to find a job. These search costs are larger for more remote households, for families distant from transportation centers, or if families face legal restrictions on migrating. Similarly, the prevalence or absence of media and other information availability can significantly alter the costs of migration for work. In addition, the decision between domestic and international migration will also significantly alter the costs of migration. Below, we examine some of the evidence that exists regarding these costs.

One proxy for the costs of migrating is distance from destination areas. Figure 6 and Figure 7 show the relationships between remoteness and child migration and child labor for Nepal. For these figures, we use the Nepal Living Standards Survey (NLSS) 2002/03 and geographic transportation network data from Mountain Environment and Natural Resource Information Systems (MENRIS). The NLSS allows us to identify migrant children using both the fertility survey approach and the household survey approach. The MENRIS database allows us to estimate travel times from one point to another along the transportation network using suitable travel speeds according to the type of roads. For each sampled community in the NLSS, we estimate how much time it will take to travel to the nearest major city.
(Kathmandu, Nepalgunj, Pokhara, or Biratnagar). Our assumption is that larger travel times imply greater migration costs.

**Figure 6: Child Independent Migration and Travel Times to Nearest City in Nepal**

Source: Author’s calculations using the Nepal Living Standards Survey 2002-2003 and transportation network for Nepal from Mountain Environment and Natural Resources Information System (MENRIS).

Note: Each point in the figure represents a PSU.

In Nepal, children migrate out of more remote areas and into less remote areas. This is evident in Figure 6. The left panel uses the fertility method to compute what fraction of children 5-17 live away from their mothers. It is increasing in travel time to the nearest city. The right panel uses the roster method to identify children living without a parent. The incidence of children living without a parent is decreasing in remoteness.

Figure 6 portrays an image of child migration in Nepal that is consistent with conventional wisdom - children are more likely to migrate from more remote areas to less remote areas. However, this conventional few confounds both push and pull issues. More remote families are poorer, facing worse employment and other opportunities. Figure 7 hints at this. Using the same data, Figure 7 depicts the association between wage work participation and travel time to the nearest city in Nepal.
Children are less likely to migrate from areas where wage labor market participation is rare in Nepal. This observation is consistent with the previous discussion that children are more apt to migrate from areas where there are fewer employment opportunities, a push factor. Thus, while migration costs that deter migration are important, they may not be of first order importance, at least in the case of Nepal.

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 (2007) 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, while not evidence in the descriptive pictures from Nepal, 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 form of cross-border migration often requires lengthy bureaucratic process and is often costly. McKenzie (2005) finds great variation in passport costs across countries, ranging from 0 to 125 percent of the countries per capita national income. He finds that poor countries and countries with poor bureaucracy tend to have higher passport cost as a fraction of national income per capita. He observes a strong negative relationship between passport costs and 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.

2. Information and the role of networks

Adults rarely migrate without prior information about their destinations and opportunities available to them in the destination. The role of social networks is very important on an individual’s decision to migrate. Usually migrants have some sort of connection in the destination they chose to migrate. That connection could be through family members, relatives, friends, close acquaintances, or through recruiters who come to the origin frequently to recruit workers. In this section, we examine the role these networks play for potential migrants and their employers.

a. For the migrant

“My friend’s maternal uncle from a neighbouring village approached my mother at the behest of a friend running a hotel in Bangalore’s Magadi Road. My mother agreed and I joined this new workplace as cleaner come counter assistant for a salary of Rs 1,360 per month.”

Govinda, working in a bakery in Bangalore, southern India. Voices of Child Migrants. Migration, Globalisation and Poverty publication.

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, both at family and at the community level increases the likelihood of migration. They observe that large networks spread the benefits of migration to members at the lower end of the income and wealth distribution and make migration less costly for future migrants. 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.

Social networks can affect migration in an opposite manner as well. Just like migration network increases migration rate from that village by providing support to ease migration process, existing social networks can make migration unnecessary by providing mutual
insurance and support to their members. As long as the mutual insurance scheme copes with inequalities and shocks, people have lesser reasons to move. Munshi and Rosenzweig (2007) find direct evidence for this in their study of sub-caste networks and mobility in India. They observe that among households with the same wealth level, those in higher-wealth caste networks are more likely to obtain loans and are less likely to be mobile. They argue that in absence of comparable alternative risk sharing agreement, which is the case in India, people are less likely to migrate and lose the benefits of the network.

b. For the potential employer

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.

3. Formal Schooling

Generally, it is perceived that child labor migration reduces educational opportunities and attainment. When cost of additional year of education is high and there is little increase in compensation for an additional year of schooling, the opportunity cost of education is reduced. In this situation, children are more likely to choose work over schooling, especially when they can migrate, at low cost, to regions with higher child wages. Some evidence exists to support this idea. De Brauw and Giles (2005) exploit exogenous variation across China in the timing of a national identity card distribution in order to study the impact of migration costs on high school enrollment. They find a negative relationship between migration opportunities and high school enrollment supporting the view that migration opportunities hinder education.

But migration can have positive impact on education as well. In his study of child domestic workers in Nepal, Edmonds (2007) finds higher school attendance amongst domestics compared to wage workers and children working under home enterprise. He observes that domestics also have higher literacy rates and school completion compared to other working children. He argues that schooling is a big part of compensation package of the domestics and schooling could be an important motivation in sending children to work as domestics. Similarly, Akresh’s (2004) study in Burkina Faso reveals higher schooling attainments and completion of foster children compared to their non-fostered siblings. These two studies reveal that better access to formal education might be an important motivation to send children away from home.

4. Child agency and autonomy

“I was a regular student, but was occasionally beaten for lack of punctuality in completing homework. I was good in sports, but mathematics was a tough nut to crack and in my eighth standard I failed in this, my most feared subject. My parents insisted that I should resist the
exam, but I refused because it would be humiliating to sit with younger students while my peers and friends would be studying in a higher standard. My father beat me and told me that if I refuse to heed their advice I would have to take care of my own life. This prompted me to run away.”

Umesh, working in a factory canteen in Bangalore. Voices of Migrant Children. Migration, Globalisation & Poverty publication.

“I was 14 years at the time and had found the job myself. I wanted to earn some money because back home I had to ask my father to buy things for me and he couldn’t buy all the things I’d like to have. Both my mother and father knew that I wanted to find work in Tenkodogo and they didn’t mind.”

Ibrahim, working in a restaurant in Ouagadougou, Burkina Faso. Voices of Child Migrants, Migration, Globalisation & Poverty publication

We have discussed decisions about time allocation as being made by an agent, but in reality the agent is just a representation of many family decision makers. Children, especially older children, often have considerable agency in whether they work. Moehling (2005) observes that children who work are able to alter the ways the family spends their money. Greater control and authority may be an important reason children might choose to work.

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). The sectoral studies hardly give a general picture of child autonomy in migration decision. 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. He finds that amongst migrants, boys outnumber girls and exhibit greater autonomy as well. This 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. Hence, he concludes that children exhibit high degree of autonomy in migration decision.

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) finds that these run-away children feel “emotionally, physically, and sexually vulnerable” at home and 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.
4. SECTOR STUDIES – INCIDENCE, PREVALENCE AND CHARACTERISTICS OF SECTORS THAT EMPLOY CHILD MIGRANTS

Migrant demand is poorly understood. Often, migrant demand is simply labor demand in the destination areas. In this case, the independent migrant for work joins the labor market in the destination area, and functions as any other employee. For these instances, there is little insight to be gained from studying migrant labor demand as it affects child-time allocation decisions in the same way as all employment opportunities. Migrant labor demand is a substantially more interesting question when migrants are segmented from the overall labor market. When migrant labor demand is different than labor demand overall in the receiving area, there is greater scope for abuse and exploitation as there must be some barrier that prevents the free flow of labor between migrant receiving sectors and other sectors.

Before turning to sectors in which there appears to be a high prevalence of migrant workers, it is useful to understand what the types of industries most likely to employ children. Agriculture is dominant as it is for adult employment in very low-income countries. Table 7 shows the industrial composition of employment for children by age, gender, and locality for Bangladesh. The choice of Bangladesh for this example is driven by the uniquely detailed industrial classification detail collected in the Bangladesh National Child Labor Survey.

The urban - rural differences in Table 7 are most likely to be informative about different employment opportunities that might be associated with child migration as there is often a perception that migration is rural to urban (although we are not aware of any evidence to suggest that most independent child migration for work is rural to urban). At very young ages, urban boys who work are largely involved in agriculture, manufacturing, and retail trade. For very young boys in rural areas, agriculture is much more dominant and manufacturing and retail trade more unusual. For very young girls in urban areas, agriculture, manufacturing (especially tobacco), retail trade, and private household employment are dominant. Younger rural girls are less involved in manufacture and retail. Agriculture is much more dominant and private household employment is similar between urban and rural areas. With age, both urban and rural boys become more involved in transport and construction. They become less involved in hotels and restaurants. While there is little change in urban areas in the proportion of boys in retail, retail sector involvement increases in rural areas. For girls, manufacturing involvement grows considerably with age in both urban and rural areas (although Tobacco appears to decline its share of total employment in urban areas) and work as a domestic in a private household declines as a share of total employment.

Table 7 hints that the relative importance of an industry as a draw for children can vary with age and gender. In Bangladesh, it seems unlikely that boys would migrate for work as a domestic, for example. Tobacco manufacture might be an important draw for very young girls in urban areas but it is likely less central for older children.
The goal of this section is to provide a meta-analysis of available information about child migrants in different countries, especially on sectors where child migrants are thought to be concentrated in multiple countries. Each sector study will first focus discussion on common aspects across countries explaining how child migrants became involved in the sector and why children are involved in the sector. Then each sector study will contain a description of what differences appear in reports in order to identify important sources of heterogeneity in child migration supply and demand. Our goal is to identify whether and why a sector relies principally on migrant child labor. A common theme in the studies reviewed below is that

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**Table 7: Industrial Composition of Child Employment in Bangladesh 2002/03**

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th></th>
<th></th>
<th>Girls</th>
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<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>5-9 10-14 15-17</td>
<td>5-9 10-14 15-17</td>
<td></td>
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<td></td>
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<tr>
<td><strong>Urban</strong></td>
<td></td>
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</tr>
<tr>
<td>Not Working</td>
<td>0.98 0.69 0.58</td>
<td>0.99 0.87 0.80</td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Composition of Employment</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture, hunting and related service activities</td>
<td>0.12 0.22 0.12</td>
<td>0.20 0.27 0.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fishing operation of fish hatcheries and fish farms, service activities incidental to fishing</td>
<td>0.05 0.03 0.02</td>
<td>0.00 0.01 0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacture of Food Products and Beverage</td>
<td>0.01 0.02 0.01</td>
<td>0.02 0.03 0.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacture of Tobacco products</td>
<td>0.09 0.01 0.01</td>
<td>0.20 0.04 0.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacture of textiles</td>
<td>0.01 0.04 0.04</td>
<td>0.02 0.05 0.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing N.E.C.</td>
<td>0.16 0.17 0.15</td>
<td>0.04 0.22 0.40</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Construction</td>
<td>0.05 0.04 0.09</td>
<td>0.07 0.05 0.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sale, maintenance, and repair of motor vehicles, motor cycles, cycles, rickshaws; retail sale of automotive fuel</td>
<td>0.01 0.03 0.03</td>
<td>0.02 0.01 0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholesale trade and commission trade, except of motor vehicles and motorcycles</td>
<td>0.03 0.04 0.02</td>
<td>0.04 0.03 0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail trade except of motor vehicles and motor cycles: Repair of personal and household goods</td>
<td>0.27 0.24 0.27</td>
<td>0.20 0.12 0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hotel &amp; restaurant</td>
<td>0.09 0.04 0.05</td>
<td>0.00 0.02 0.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land transport, transport via pipelines</td>
<td>0.03 0.05 0.12</td>
<td>0.02 0.01 0.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other service activities</td>
<td>0.04 0.04 0.05</td>
<td>0.05 0.04 0.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private household with employed persons</td>
<td>0.01 0.01 0.00</td>
<td>0.13 0.07 0.05</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Other N.E.C.</td>
<td>0.01 0.02 0.04</td>
<td>0.00 0.02 0.03</td>
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<tr>
<td><strong>Rural</strong></td>
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</tr>
<tr>
<td>Not Working</td>
<td>0.98 0.60 0.47</td>
<td>0.98 0.83 0.76</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Composition of Employment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture, hunting and related service activities</td>
<td>0.68 0.65 0.50</td>
<td>0.61 0.69 0.58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fishing operation of fish hatcheries and fish farms, service activities incidental to fishing</td>
<td>0.06 0.04 0.03</td>
<td>0.04 0.02 0.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacture of Food Products and Beverage</td>
<td>0.00 0.01 0.01</td>
<td>0.01 0.02 0.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacture of textiles</td>
<td>0.00 0.02 0.03</td>
<td>0.03 0.03 0.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing N.E.C.</td>
<td>0.03 0.06 0.08</td>
<td>0.09 0.06 0.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>0.01 0.02 0.05</td>
<td>0.01 0.01 0.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sale, maintenance, and repair of motor vehicles, motor cycles, cycles, rickshaws; retail sale of automotive fuel</td>
<td>0.00 0.01 0.01</td>
<td>0.00 0.00 0.00</td>
<td></td>
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</tr>
<tr>
<td>Wholesale trade and commission trade, except of motor vehicles and motorcycles</td>
<td>0.01 0.02 0.00</td>
<td>0.00 0.01 0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail trade except of motor vehicles and motor cycles: Repair of personal and household goods</td>
<td>0.06 0.10 0.11</td>
<td>0.05 0.06 0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hotel &amp; restaurant</td>
<td>0.07 0.02 0.03</td>
<td>0.02 0.01 0.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land transport, transport via pipelines</td>
<td>0.03 0.03 0.07</td>
<td>0.01 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other service activities</td>
<td>0.01 0.01 0.04</td>
<td>0.01 0.02 0.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private household with employed persons</td>
<td>0.00 0.00 0.00</td>
<td>0.12 0.03 0.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other N.E.C.</td>
<td>0.02 0.01 0.03</td>
<td>0.01 0.02 0.03</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

**Source:** Authors' calculations from the 2002/2003 Bangladesh National Child Labor Survey. N.E.C. = Not elsewhere classified
when a sector relies principally on migrant child labor, it is typically because there is some return to the employer of the extra control and influence that the employer can have over a child migrant.

Cross-country tabulations of the sectors of employment of child migrants do not appear to be available. McKenzie (2008)'s study of youth (12-24) migrants summarized in Table 3 and discussed in section II is appears to be the closest we have. He documents that boys are most likely to work in agriculture and manufacturing where as girls engage in jobs like domestic work, sales clerks, and cooking. However, his occupation data is concentrated among children above 18 and his sample of countries is relatively high income. Hence, these tabulations are unlikely to be representative of the entire child labor migrant population. McKenzie's observation that boys select into the more physically demanding jobs of construction and agriculture might not generalize to younger ages. For example, KC et al (1997) reports that most child labor migrant in Nepal are concentrated in service related works and jobs like housekeeping. In this study, few are engaged in agriculture, surprising given that agriculture is the dominant sector of employment in Nepal. In table 7, few young children in Bangladesh are engaged in construction, so that is unlikely a draw for young migrants, although agriculture could be.

In the sections below, we review various sectors in which child migrant workers are most likely to be present. Though we do not know what proportion of total migrant child labor is in these sectors, we know that a good proportion of children working in these sectors are independent migrants. The sectors under considerations are some of the worst forms of child labor. While it is possible for migrant child laborers to work in other sectors that are not as exploitative, existing literature does not allow us to assess those sectors in depth. For instance, McKenzie (2008) indicates that construction is a possible sector for migrant working males, very few research and studies have been done in this sector with a focus on children.

A. Domestic servants

A child domestic servant is a child under 18 who performs domestic chores in his/her employer’s household with or without remuneration. 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). 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. Domestics are vulnerable to abuse because of the isolation of their workplace, and many countries consider it a worst form of child labor.

Domestics are generally sent by their parents or relatives (see, for example, ACPR 2006). Child-agency in the decision to migrate to be a domestic worker was rarely investigated in the reports we found. Perhaps this is because many find it hard to imagine a child acting alone to be a domestic worker since he/she needs some network or connections to convince his/her employers to keep him/her as a domestic.

In terms of motive for becoming a domestic, most of the child domestic workers interviewed cite poverty as the main reason for their migration and decision to work as a domestic. This is
common across all countries (and for most of the sectors involving child migrants). 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).

Most of the reports indicated the existence of some form of exploitation and abuse to the domestic child workers (see, for example, Kifle 2002, KC et al 2002). Children often report verbal abuse and are punished. 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.

Another important common characteristic of child domestic workers is that a significant proportion of them are not being paid directly (see, for example NIS 2003). The compensation might be paid to the parents or relatives or the compensation might be in-kind. Children are often provided with lodging, food, clothing, and/or enrolled in a school instead of giving them monetary compensation.

While the circumstances of entry and work environment vary across countries, the types of activities performed by domestics appear to be similar across countries. These tasks include dishwashing, cleaning, cooking, babysitting, mopping floor, serving food, purchasing daily essentials. Even among domestics, there can still be substantive sex typing of tasks. For example, many studies observed male domestics who were often tending gardens or livestock. In contrast, girls work more inside the home.

In the remainder of the section below, we discuss the characteristics and incidence of child domestic workers more specifically.

**Incidence and prevalence**

Many studies have been done regarding child domestic servants. ILO/IPEC Time Bound Programs have often targeted domestics as a sector to be eliminated, and many studies are conducted in that context. These studies provide estimates of child domestic workers in different countries and help us understand their situation in a more quantitative and qualitative manner. Table 8 presents the estimates under such studies carried out in different countries/cities.

For most of the countries, the phenomenon of child domestic workers is more prevalent in urban areas, especially within and around big metropolitan cities. Because of the high incidence of child domestic workers around urban and metropolitan areas, most of the surveys on child domestics have been done in particular areas and cities, especially in the capital province. Bangladesh is probably an exception to this in terms of having a nationally representative survey of child domestic workers and availability of their reports online.
As seen in Table 8 Bangladesh has the highest incidence of child domestic workers amongst the countries tabulated. A baseline survey of child domestic workers carried out by Associates for Community and Population Research (ACPR) in Bangladesh in 2006 finds 6,278 child domestic workers aged 6-17 in their survey of 167,051 households from 725 clusters across the nation. Based on this rate of incidence and the projected population of 2005, the survey estimates 2.2 million domestic workers in Bangladesh, out of which 421,426 are children.

Most of the child domestics in Bangladesh are concentrated in urban centers and a huge proportion of domestics (35 percent) are located in Dhaka city alone (this observation can be consistent with table 7 which only tabulates the share of economically active children in each sector by location). The ACPR study finds that, approximately 1.1 percent of the households employ a child domestic worker. As anticipated, a greater proportion of urban households employ a domestic than rural households. According to the survey, 0.8 percent of rural households and 3.3 percent of urban households employ child domestics. The incidence of child domestic workers is highest in metropolitan cities. About 4.4 percent of city corporation households employ child domestics and the concentration is highest in Sylhet (9.6 percent).

The incidence of child domestic workers is often taken to be an urban phenomenon. Consistent with this notion, National Institute of Statistics of Cambodia (NIS 2003) selects Phnom Penh as its survey ground for The Child Domestic Worker Survey in Cambodia. The survey interviews 2,500 randomly selected households from 125 villages across all seven districts of Phnom Penh. The survey finds a total of 293 child domestic workers and based on this rate of incidence, estimates a total of 27,950 child domestic workers under the age of 18, most of whom (55 percent) are located in non-slum areas of Phnom Penh. The survey finds that 36 percent of the child domestics work in the district of Russey Keo, the second largest district of Phnom Penh.

Eleanor Brown (2007) conducts another study on child domestic worker in three provinces of Cambodia – Koh Kong, Kampong Som, and Siem reap. She interviews 1,360 households in...
these three provinces and finds 123 child domestics under the age of 18. Though her study does not provide an estimate for these three provinces, the rates of incidences is comparable to the study conducted by the NIS. The average number of domestics indentified per interviewed household is 0.090 in Brown’s study, which is slightly lower than 0.117 in NIS study in Phnom Penh. This indicates significant incidence of child domestic workers outside Phnom Penh. Like other studies, Brown also finds that most of the child migration for domestic work is towards urban centers in the three regions of her study.

Another study of child domestic workers focuses on the city of Addis Ababa, Ethiopia. The ILO Rapid Assessment (Kifle 2002) uses the information from the 100 interviewed child domestic workers from three districts of Addis Ababa and some key-informants to come up with a crude estimate of the number of child domestic workers in Addis Ababa. The assessment asks identified child domestic workers to estimate the number of households employing a child domestic based on their experience, knowledge and contact. The study incorporates this information with the information from key-informants and local organizations and estimates that about 1 in 40 to 50 households employ a child domestic worker. Based on this rate, the study estimates 250 to 300 child domestic workers per district leading to an estimate of 6,500 – 7,500 child domestic workers aged below 18 in Addis Ababa.

A rapid assessment of child domestic workers in Malawi carried out by Centre for Social Research on behalf of the ILO (2005), surveys 724 randomly selected households from four districts, namely Mangochi, Lilongwe, Mchinji and Mzimba. Amongst these households, the assessment finds that 2.2 percent had supplied at least one child domestic worker, and estimates that 33,284 children work as domestics from these four districts. The rapid assessment also found 61 domestic servants in the visited households of which 33 were children under 18, and estimate that the four districts have approximately 15,241 child domestic workers working. The assessment found that 91 percent of the child domestic workers are urban-based, with highest concentration in urban centers of Lilongwe.

A rapid assessment of child domestic workers in Kathmandu (Sharma et al, 2001) finds 420 child domestic workers from a door-to-door survey of 2,237 households in eight core-urban, urban and semi-urban sub-wards of Kathmandu. Based on the incidence rates of child domestics by sub-ward categories (core-urban, urban and semi-urban) and taking into account the estimated number of households in each category, the study estimates 21,191 child domestic workers in Kathmandu municipality alone. The study uses incidence parameters for child domestic workers under 15 provided by UNICEF for Pokhara, Butwal and Siddarthanagar municipalities to estimate about 42,674 child domestic workers aged below 15 in urban Nepal. While arriving at this estimate, the study assumes that all the municipalities (urban areas) in Nepal correspond to one of the three municipalities in terms of incidence of domestic workers for which UNICEF has incidence parameters. Further, by applying the ratio relevant for children 15 – 18, the study estimates 55,655 child domestic workers aged 18 and below in urban Nepal.

Though the estimate of total number of child domestic workers in Nepal is derived from a series of questionable assumptions and is potentially unreliable, the estimate for Kathmandu municipality seems quite sensible. The study further finds that 18.1 percent of the households
in Kathmandu employ child domestic workers. Breakdown of this incidence levels by intensity of urbanization reveals that the incidence of child domestic workers does not always increase with the degree of urbanization. In Kathmandu, only 10.4 percent of core-urban households employ child domestics whereas the incidence rate for urban households is 21.3 percent and for semi-urban households is 18.3 percent. This means that about a fifth of the households in urban and semi-urban Kathmandu employ child domestics, which is very high compared to the incidence in core-urban Kathmandu. The authors posit cultural tendencies as a possible reason for this difference. The core-urban Kathmandu consists largely of Newar households, an ethnic group traditionally associated with not keeping servants at home.

For Sri Lanka, Child Activity Survey Report (Department of Census and Statistics, 1999) estimates 19,111 children under 18 working as domestic workers of which 45.3 percent are not living with their family. The estimate is derived from the households supplying child domestics as well as households employing a domestic. The report argues that households that employ a child domestic are less likely to report a domestic. It asserts that these estimates are apt to understate the true prevalence of domestics.

Rapid Assessment by the ILO (Kannangara, de Silva and Parndigamage 2003) in Sri Lanka uses a different method of getting at the incidence of child domestic labor. Instead of going to a household and asking them whether they have a domestic in their family or not, which the authors believe might generate large number of non-responses, they go to schools in urban areas and ask ‘who else is in the household’. Through this approach, they sent out 7,574 questionnaires to the school-going children and found that 1.94 percent of the households employ a child domestic worker. They also find that a businessperson or a professional are more likely to employ a domestic in their home.

An ILO Child Domestic Worker Survey in Ho Chi Minh City (ILO 2006) finds 39 child domestic workers in 200 selected clusters of households in Ho Chi Minh City. Based on this prevalence rate (weighted), the survey estimates 2,162 child domestic workers in the City. Similarly, another Rapid Assessment by the ILO (Phlainoi, 2002) in the city of Bangkok, Thailand interviewed 115 child domestic workers from Thailand. However, this study does not provide an estimate of child domestic workers in Thailand.

Budlender and Bosch (2002) use the South Africa Young People’s Survey to arrive at an estimate of incidence of child domestic workers. They find 53,942 children who reported to have done some domestic work for other families. However, they estimate that less than 10,000 children were engaged in forms of domestic works that might be classified as a worst form of child labor. However, due to small sample size problem, the authors used the 53,942 children to report characteristics of the survey. Like several other studies, they find that the domestic workers are more likely to be found in wealthier urban formal areas. Child domestics were especially concentrated in the Western Cape, which has the legislative capital and second most populous city of Cape Town. Child domestics were noticeably under-represented in KwaZulu-Natal province, which is one of the poorest parts of the country.
**Characteristics of domestics – Age and gender**

As table 8 illustrates, child domestic workers tend to be girls, though there is a considerable variation among countries. For example, the ACPR (2006) study in Bangladesh finds that 78 percent of the child domestics are females. Brown’s (2007) study of domestics in Cambodia’s regions of Koh Kong, Kampong Som, and Siem Reap found that 89 percent of domestics were female, and Kifle’s (2002) study of domestics in Addis Ababa found 84 percent of domestics to be girls. The prevalence of girls is probably because of the strong gender norms that associate girls with household work.

However, boys are also found as domestics. Three studies of domestics in large cities found a larger percentage of boys who are domestics. The NIS (2003) study of domestics in Phnom Penh found that 41 percent of domestics in that city were boys. Sharma et al (2001) found that a majority of domestics in Kathmandu were boys. In South Africa, the proportion of boys amongst domestic workers is much higher. Budlender and Bosch (2002) find that nearly two-thirds (62 percent) of the child domestic workers in South Africa are boys. The proportion of boys is exceptionally higher (94 percent) in urban-informal areas of South Africa. Boys may perform different tasks than girls, but the scope for gender specialization of tasks is not obvious as most studies document that households often have just one domestic.

In terms of age, these surveys find domestic workers as young as 6 years old. Most of them, however, tend to be of older age groups. It is difficult to draw generalizations about the age range of child domestics, because many studies impose a definition of a child. Hence, one study may find most child domestics to be 10-14, because they do not consider 15 year olds to be children. An alternative study might find most child domestics to be older, because they consider an older range. Overall, it is a fair generalization that domestics are generally older than younger, especially within the suitable age ranges for children.

For example, the ACPR (2006) study in Bangladesh defines a child as someone below the age of 18. One fifth of domestics below age 18 are below age 11 which is similar to what Budlender and Bosh (2002) find in South Africa. Brown’s (2007) study of Cambodia found 76 percent of child domestics under 18 were aged 16 and 17 and 70 percent of child domestics were above 15 in the ILO’s (2005) study of Malawi. Phlainoi’s (2002) study of domestics in Bangkok documented that two-thirds of child domestics were age 17.

As with gender, there is still considerable heterogeneity in the age ranges observed for domestics. That 70 percent of domestics in Malawi are above age 15 implies that 30 percent are 15 or younger. Domestics as young as 6 are reported in the ACPR (2006) study for Bangladesh. Sharma et al’s study of Nepal again stands out as unusual in that it finds that more than two-thirds of domestics were aged 10-14.

Very young migrants certainly face less autonomy in their decision about going, and it could be that younger migrants have very different motivations than older migrants. Older migrants may be using the domestic employment to finance migration costs, with a limited expected service in their host household. Younger migrants may be motivated more for the work itself or for other benefits provided as a part of the work. That said, only a few studies consider whether domestics of different ages are comparable in terms of their motivations, expectations and other characteristics.
Characteristics of domestics – Race, ethnicity, caste
Ethnicity and race plays important role in child migration decision as well as selection into child domestic workers, especially in societies where norms regarding ethnic groups are strong. Some ethnicities might be traditionally associated with specific type of jobs (for example, the caste system in India and Nepal) and in most cases, ethnicity and race are often indicative of socio-economic class. These norms play an important role in selection of children into domestic worker as well as in selection of households into keeping child domestic workers.

Ethnic minorities are often associated with lower socio-economic class and children of these groups are more likely to work as domestics. For example, in India lower caste groups were over-represented in the population of child domestic workers. In Sri Lanka as well, 59 percent of child domestic workers were of Tamil speaking background which is an ethnic minority in Sri Lanka (Kannangara, deSilva and Parndigamage 2003). Similarly, Budlender and Bosh (2002) find over-representation of colored children, especially for girls working as domestics in South Africa.

The notion of ‘purity’ of an ethnic group is important in societies that value the ‘purity’ of the race, ethnicity or caste group. Pearson (2006) argues that Thai households are more likely to pick a cleaner race while choosing domestic workers. The profile of child domestic workers in Kathmandu lends support to this idea. A huge proportion, 39.2 percent, of child domestic workers in Kathmandu comes from high-caste group (Sharma et al. 2001).

Traditional norms regarding ethnicity also play an important role in shaping child domestic worker population as well as their spatial location. For example, in Sharma et al. (2001) study of child domestic in Kathmandu, they find over-representation of Tharu caste group, a caste group traditionally associated with sending family members to work in others’ households. The lower incidence of child domestic workers in core-urban Kathmandu due to high population of Newars, as discussed above is another example. Similarly, Gamu and Guragie ethnic groups in Ethiopia traditionally use the services of children in domestic work whereas people from Amhara ethnic group traditionally bring in children to work as domestic (Kifle 2002).

Children of an ethnic group traditionally associated with sending children away for domestic work will have easy access to pre-established ethnic networks that reduce their search costs in finding a home that will employ them. Thus, they are naturally more likely to migrate to work as domestics compared to other children.

Characteristics of domestics – Places of origin
In general, child domestic workers originate either from rural areas or from areas of geographical convenience (for example, surrounding areas of big cities or metropolitan areas). It is logical to assume that these places of origin are poor as most of the respondents cite poverty as a reason for their migration to work as a domestic worker. It is not clear whether migrants select out of poorer households in these relatively poor areas.

Since migration is costly and the costs of migration increases with distance, children who migrate to work as domestic workers often migrate short distances, if possible. Most studies,
which focus on a particular urban center shows the most of its child domestic population hail from nearby regions. For example, in ILO’s (2006) study in Ho Chi Minh City, 23 percent of the child domestics originate from the city itself. Remaining child domestic workers originate from other provinces of Vietnam, with most of them from the southern province near Ho Chi Minh City. Similarly, 31.5 percent of the child domestics in Kathmandu come from neighboring districts of Kathmandu (Sharma et al 2001).

The association between poverty and selection into child domestic workers is reflected in the places of origin of the domestics. ILO’s (Phlainoi 2002) study in Bangkok reveals that over half of the child domestic workers (56.5 percent) originate from the Northeast, which is the poorest region of Thailand. About 20.9 percent originate from the Central Plains and 15.7 percent from the North. Similarly, the ILO Rapid Assessment in Sri Lanka (Kannangara, de Silva and Parndigamage, 2003) identifies inner city slums, rural areas, and conflict affected areas as major places of origin for the child domestics.

Though it is clear that child domestic workers migrate from relatively poor rural areas to work in urban households, it is not clear what types of households from the poor regions choose to send children to work as domestic workers. Most of the children report that they migrated out of poverty, which implies that poorer households would engage more in child migration to work as domestics. However, we cannot verify this claim based on the surveys at hand.

In societies with strong norms regarding ethnicity of child domestic workers, the distribution of ethnic groups that are more likely to supply child domestics is spatially correlated with the place of origin of the domestics. The profile of child domestics in Kathmandu lends support to this notion. About 14 percent of child domestics in Kathmandu originate from western districts of Nepal, which are home to the Tharu caste group associated with sending family members away to work in others’ household.

The ACPR (2006) study in Bangladesh is again an exception in terms of exhibiting strong variation in the origins of the child domestic workers. Children from all 64 districts of Bangladesh migrate to work as domestic workers. However, more that 50 percent originate from fifteen districts, viz., Barisal, Chittagong, Bhora, Mymensingh, Comilla, Rajshahi, Sunamganj, B. Baria, Chandpur, Hobiganj, Khulna, Kishoreganj, Naogaon, Rangpur and Sylhet districts.

**Recruitment process/networks**

Another factor that affects the spatial location and of child domestic workers is the existence of recruiting networks for child domestic workers. In general, most of the children are sent by parents to work as domestics. Both supplying families and employers use some sort of formal or informal network to send/recruit a child domestic worker. Existence of such networks seems to be more prevalent in the outskirts of metropolitan areas and in areas with kinship ties of the employers.

In Cambodia, about 60 percent of the child domestics in Phnom Penh mention that they were related to the employer (NIS, 2003). About 56 percent of the employers reported that domestics were sent to work by their family or a relative. About 24.6 percent of employers
reported that they search for child domestics on their own and 5.6 percent reported contacting a supplier of domestic workers.

For child domestic workers in Addis Ababa, formal and informal networks are popular (Kifle, 2002). Children start domestic service in very informal ways in their neighborhood at a very young age. When they are grown up, relative or acquaintances bring them to Addis Ababa at the initiation of the parents. In Addis Ababa, they find work either through a broker where they are employed with a modest wage or through relatives or friends in which they find temporary lodging. Children employed through the latter channel work usually are paid in kind (food, clothing, lodging, and possibly schooling). Brokers are organized and have informal link in rural areas as well as urban households.

In Nepal, relatives play a key role in enrolling children to work as domestic laborers (Sharma et al, 2001). For the children indentified as domestic workers in Kathmandu, 46 percent of the migrants were enrolled by their relatives, 16 percent were enrolled by their own parents. In 82 percent of the cases, parents were seen to be motivating children to work as domestic workers. In 24 percent of the cases, the employers themselves used their connections in the village to recruit a domestic child worker. High-caste families seemed to use their caste network to search for child domestic workers from other parts of the country.

In Thailand, the ILO/IPEC Rapid Assessment (Phlainoi 2002) finds that communities of origin have developed mechanisms and social networks to ensure confidence in the recruitment and conditions of their children. The author argues that existence of such networks not just help in the recruiting process but also ensures the well-being of the child domestic workers and prevents them from being exploited.

**Why employ children as domestic workers**

Children are commonly favored over adults to work as domestic workers. It is possible that children are preferred, because they are easier to manipulate. About 80 percent of the employers of child domestic workers in Bangladesh indicated that domestics were easier to deal with when explaining their reason of employing a child domestic worker (ACPR 2003). About 12.7 percent reported that they were less expensive indicating that children are unaware of their labor rights and are easily exploitable.

Interestingly, the study in Nepal emphasizes that children are sent to work as domestics as their labor is used as collateral to access credit that would not be otherwise available. Children appear to be an asset that an otherwise asset-less adult can leverage productively.

The ILO/IPEC study (Phlainoi, 2002) in Thailand reports that there has been a scarcity of Thai child domestic workers in Bangkok in recent years. The scarcity, the report suggests, has translated to increased wages and better compensation for Thai child domestic workers. This, however, has increased demand for immigrant child domestic workers in Thailand. The ready availability of cheap immigrants of certain ‘clean’ ethnicities willing to work for low wages and under poor conditions has increased the demand for foreign migrants from Myanmar, Laos and Cambodia (Pearson 2006). Pearson also finds coercion mechanisms like retentions of IDs and threat of report to authorities (for illegal migrants) existing among child migrant workers in Thailand. These mechanisms coupled with the societal attitude that looks
down upon foreign migrants have created the possibility that employees can have substantive control and leverage over imported foreign domestics in Bangkok.

B. Street children, begging, and ragpicking

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. Laura Giani (2006) describes them as ‘run away’ children who migrate to the streets because they feel emotionally, physically and sexually vulnerable at home. These children usually sleep in streets with their friends or family members. 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 migrants. 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.

Table 9 summarizes the estimates and gender distribution of street children that are available. In the sections below, we discuss some of these studies in detail.

Table 9: The Prevalence of Street Children in Various Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Study Agency</th>
<th>Study Type</th>
<th>Year</th>
<th>Sample Size</th>
<th>Age Range</th>
<th>Estimated Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>ILO/IPEC study</td>
<td>Rapid Assessment</td>
<td>2002</td>
<td>298</td>
<td>6 to 17</td>
<td>n/a</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>FREPD</td>
<td>Baseline Survey</td>
<td>2003</td>
<td>450</td>
<td>under 18</td>
<td>2573</td>
</tr>
<tr>
<td>Cambodia</td>
<td>UNICEF study in Phnom Penh</td>
<td>Unknown</td>
<td>2000</td>
<td>n/a</td>
<td>under 18</td>
<td>10,000 - 20,000</td>
</tr>
<tr>
<td>Cambodia</td>
<td>Mith Samlanh/Friends Survey</td>
<td>Survey</td>
<td>2001</td>
<td>n/a</td>
<td>under 18</td>
<td>1200</td>
</tr>
<tr>
<td>Egypt</td>
<td>ILO/IPEC study in Cairo</td>
<td>Unknown</td>
<td>2004</td>
<td>n/a</td>
<td>under 18</td>
<td>2,500</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>UNICEF</td>
<td>Unkonwn</td>
<td>1994</td>
<td>n/a</td>
<td>150,000</td>
<td></td>
</tr>
<tr>
<td>Ghana</td>
<td>Ghana Statistical Service Survey</td>
<td>Street Children Survey</td>
<td>2003</td>
<td>2314</td>
<td>7 to 14 (?)</td>
<td>3,500 - 8,000</td>
</tr>
<tr>
<td>India</td>
<td>ILO/IPEC study in Bangalore and Kolkata</td>
<td>Survey</td>
<td>2004</td>
<td>n/a</td>
<td>Most</td>
<td>12,000 and 50,000</td>
</tr>
<tr>
<td>Malawi</td>
<td>National Statistical Office</td>
<td>Street Children Survey</td>
<td>2002</td>
<td>396</td>
<td>5 to 17</td>
<td>n/a</td>
</tr>
<tr>
<td>Mongolia</td>
<td>Consortium for Street Children</td>
<td>Unknown</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>1,000-4,000</td>
</tr>
<tr>
<td>Morocco</td>
<td></td>
<td>Visual Estimate</td>
<td>2000</td>
<td>n/a</td>
<td>n/a</td>
<td>10,000</td>
</tr>
<tr>
<td>Nepal</td>
<td>ILO/IPEC</td>
<td>Rapid Assessment - Ragpickers</td>
<td>2000</td>
<td>300</td>
<td>5 to 17</td>
<td>3,965</td>
</tr>
<tr>
<td>Philippines</td>
<td>ILO/IPEC study in Quezon</td>
<td>Unknown</td>
<td>2004</td>
<td>n/a</td>
<td>under 18</td>
<td>1,500</td>
</tr>
<tr>
<td>Romania</td>
<td>ILO/IPEC study in Bucharest</td>
<td>Rapid Assessment</td>
<td>2002</td>
<td>150</td>
<td>4 to 17</td>
<td>2,000</td>
</tr>
<tr>
<td>Senegal</td>
<td>UCW study in Dakar institute</td>
<td>Survey of Beggers</td>
<td>2007</td>
<td>n/a</td>
<td>6 to 17</td>
<td>7,600</td>
</tr>
<tr>
<td>Tanzania</td>
<td>ILO/IPEC study in Dar Es Salaam</td>
<td></td>
<td>2004</td>
<td>n/a</td>
<td>under 18</td>
<td>50-100</td>
</tr>
<tr>
<td>Turkey</td>
<td>ILO/IPEC study in Istanbul</td>
<td>Rapid Assessment</td>
<td>2001</td>
<td>188</td>
<td>7 to 17</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Estimation and prevalence

Street children phenomenon is mostly prevalent in the metropolitan areas and other urban centers where there are plenty of petty economic opportunities. We find that a large number of street children are located in metropolitan areas, capital cities and other urban centers. Because of the extremely mobile nature of the street children, surveys often fail to capture all types of street children and thus the estimates presented here are likely to be an underestimate.

The Bangladesh Bureau of Statistics conducted a quick count survey to provide a basis for a baseline survey conducted by FREPD (2003). The quick count survey estimates about 2,500 street children under the age of 18 in Bangladesh, majority (58 percent) of whom have very weak links with their parents. The quick count survey finds greater incidences in Dhaka, Sylhet Chittagong regions (greater districts) and negligible incidences on Khagrachhari, Bandarban, Rangamati, Jamalpur, Kushita, and Tangai regions. It is interesting to note that most of the low incidence provinces are located in the same administrative divisions as the high incidence regions. All but Kushita region is located in either Dhaka or Chittagong administrative division. The baseline survey, constructed from the sampling frame provided by the quick count survey, finds that street children are most concentrated in the metropolitan cities like Dhaka city (54.5 percent), Chittagong city (13.9 percent) and Sylhet city (14.1 percent). This shows that street children are more likely to migrate towards a greater city if it is in the vicinity. For instance, migration costs for a child living in rural village of Tangail region (in Dhaka administrative division) to migrate to metropolitan Dhaka city will not be very high compared to migrating to smaller town of Tangail as the two cities are located in geographically adjacent districts.

FREPD believes that though this is a high incidence, the estimate is probably an underestimation. The survey fails to include notable population of pickpockets, thieves, drug abusers and snatchers. However, as the extent of the omitted population is not known, FREPD finds it difficult to calculate the extent of bias in their estimate.

A similar extent of street children is found in Ghana as well. The street children’s survey in Ghana (Ghana Statistical Service 2003), which was conducted as a supplement to the national child labor survey, identifies 2,314 street children under the age of 17. Most of them (53.2 percent) lived outside their parents’ district of residence. This shows that children do travel considerable distances to urban centers of the country and live as street children.

Similar to Bangladesh, most of the children are located in industrial and commercial hubs. Two regions with the two largest cities in the country have more than three quarters of the total number of street children. Greater Accra Region has 49.7 percent of the street children and Ashanti Region has more than 26 percent of the identified street children.

Greater incidence and concentration of street children around big metropolitan cities is also reflected in the sampling frame (selected places) of several studies. The nature of street children - living in streets without adult supervision, has aroused large concerns and several studies have been done to assess their situations in different cities. One of the large scale studies are the ILO/IPEC Rapid Assessment studies on street children on various cities that have been known to have a large presence of street children. One such rapid assessment study
is Alexandrescu (2001) study in Bucharest, Romania involving 150 street children in Bucharest. Another such study is Aksit et al (2001) study in Istanbul involving 188 street children. While these studies do not provide any estimates as to the numbers of street children in the cities that they study, they reveal important information about street children to which we will return later in the discussion.

The National Statistical Office (2004) of Malawi uses a slightly different definition of street children in their street children survey conducted as a part of their child labor survey. It defines street children as children of age 5 to 17 “loitering in the streets, market place, bus depot, rail station and parks; they are mainly occupied with playing games, picking bins, involved in odd jobs, begging on the streets of just lurking on dark street corners.” With this definition, the survey identifies and interviews 396 street children in 8 districts of Malawi. Because of its broader definition of street children, the study finds that only 25 percent of the children they identified are migrants and live without their parents or guardian.

Similar to the above-mentioned studies, street children are largely concentrated in and around large metropolitan areas. Blantyre, the largest city of Malawi, solely has 42.7 percent of all identified street children. Lilongwe, the capital city has 22.2 percent. Only a quarter of the identified children live outside Blantyre, Lilongwe and Zomba.

Street children often engage in petty jobs in the streets. Of the various types of jobs that they perform, begging and ragpicking, especially, have caught attention of policymakers and surveyors. It is possibly because of their conspicuous deplorable state and the visibility of the work they perform. Beggars and ragpickers do not differ from our definition of street children. In simple terms, they are street children who engage in begging or ragpicking. One study that assesses the situation of child ragpickers in Nepal is the ILO/IPEC rapid assessment done by KC et al (2001). They interview 300 ragpickers from six urban sites and estimate 3,965 children engaged in ragpicking in various urban centers of the country. Unsurprisingly, Kathmandu valley, with the capital city, has the highest proportion of child ragpickers. Almost a quarter (24.2 percent) of the ragpickers inhabit in Kathmandu whereas almost a fifth (21.7 percent) of them are located in an eastern city of Dharan.

Understanding Children’s Work (UCW) project studies the phenomenon of child begging in the street of Senegal. This study estimates that there are 7,600 beggars in the capital region of Dakar. Out of these children, only 37 percent kept regular contact with their parents and a large proportion of children are permanently detached from their family.

**Characteristics of street children: Age and gender**

In most of the studies, the proportion of boys was overwhelmingly large amongst street children, ragpickers, and beggars. This probably has to do with strong gender norms that prevent girls from going out alone in the streets. However, an exception to this is Ghana where girls dominate boys amongst the street children. Most of the street children are aged 10 – 14, though there exist some variation amongst the cities and countries. In this section, section we examine the variation that exists in age and gender composition of street children in different countries and cities.
As table 9 shows, most of the street children are boys although there is some variation amongst these countries. Surprisingly, all of the beggars identified and interviewed in the UCW study in Dakar were boys. The FREPD (2003) study finds that 97.6 percent of street children in Bangladesh are boys. The National Statistical Office of Malawi (2004) estimates the proportion at 93 percent for Malawi and Aksit et al (2001) estimate that 89.9 percent of street children in Istanbul are boys. KC et al find 88 percent male child ragpickers in Nepal. However, the proportion of males among the street children of Bucharest is rather low compared to other countries. Only 68 percent of the street children in Bucharest are male (Alexandrescu 2002).

Ghana is an exception to the gender pattern observed in other places. The Ghana Statistical Service (2003) finds that a majority of the street children were girls. The study finds that girls outnumber boys, especially in more urban regions in Greater Accra and Ashanti regions. In these regions, 89.7 percent of the street children are girls: a much higher proportion compared to 52.4 percent of girls nationwide.

In terms of age, most of the street children were found to be of age group 10-14 though there is considerable variation across countries. About 48.8 percent of street children were aged 11-14 in Bangladesh (FREPD 2003) which is modest compared to the distribution of children in this age range in other countries. A large 67 percent of Nepali ragpickers were aged 10-14 (KC et al 2001) which is similar to 62.6 percent aged 10-14 in Malawi for street children (National Statistical Office 2004). A median age of 12 in Istanbul and mean age of 11 are more or less consistent with the view that largest proportions of children are aged 10-14. The Alexandrescu (2002) study also finds that the mean age for street children in Bucharest to be 13 with the largest proportion of children in the age group of 10-14.

Ghana is yet another exception in terms of age distribution of street children. Ghana Statistical Service (2003) finds that majority of street children are aged above 14. About 54.4 percent of street children in Ghana were aged 15-17 compared to only 37.6 percent children aged 10-14.

Greater concentration of children in older age groups, however, does not mean that all street children are old. A sizeable proportion of street children are aged below 10. About a quarter of children were aged 5-11 in Bangladesh according to the FREPD (2003) study. Similarly, National Statistics Office (2004) finds that 12 percent of street children in Malawi are aged below 10.

The greater proportion of street children in the middle age group is probably because children of older age group can earn enough in other sectors to move out of the street. Children of the youngest age group, on the other hand, will likely face large migration costs that hinders their movement out of their households to the street.

**Characteristics of street children: Ethnicity**

Generally, street children tend to be of minority and often marginalized groups.

Ghana Statistical Service (2003) finds that most (98.2 percent) of the street children in Ghana are Ghanaians by birth. The street children are mostly of Mole-Dagbon (40.2 percent) and
Akan (32.2 percent) extraction. The Mole-Dagbon population is overrepresented compared to the national distribution where they are about 15 percent of the total population.

In South Asia, where caste norms are prevalent, street children are often associated with lower caste. For instance, an ILO/IPEC (2004) study of scavengers in Bangalore and Kolkata finds that waste pickers in these cities are often Muslim or of lower caste (dalit). Another ILO/IPEC study of ragpickers in Nepal (KC et al 2001) finds that the largest proportion of ragpickers belong to the lowest caste (dalit) ethnic group (21 percent). Compared to the national population, lower-caste groups (Tamangs, Magars, and Muslims) and dalits are overrepresented whereas caste groups from Terai (Southern Plains) are underrepresented. This translates to the fact that fewer street children in urban centers come from Terai region.

The Rapid Assessment of street children in Bucharest (Alexandrescu, 2002) finds that 49 percent of the children belong to Roma minority. Roma population accounts for approximately 10 percent of the Bucharest population, which is largely dominated by Romanians.

In Dakar, about 90 percent of the beggars were Talibes who were entrusted by their parents to a Koranic teacher, or marabout, to receive religious education (UCW). A large 98 percent of the Talibes reported that their Koranic teacher sends them to beg. Amongst the beggars, 66 percent are of Peuhl ethnicity and 25 percent are Wolof.

**Main activity**

Street children engage mostly in petty jobs in the street like shoe-polishing, selling goods, begging, hawking, and ragpicking. Most of these jobs do not require any special skills and are therefore appealing to anyone willing to do the job. The availability of and demand for these activities in urban metropolitan areas leads to a large concentration of street children in commercial and industrial hubs. The type of activities that street children perform varies (somewhat) by country and places and is often determined by age and gender composition, and often by the ethnicity of the street children.

The FREPD study (2003) observes that the most frequently mentioned activities of street children in Bangladesh are: collecting old papers, loading and unloading, begging, helper, hawker, shoe-polisher, flower-seller. The study notices age-wise variation in the occupations that street children perform. Younger children were mostly involved in begging whereas older children are more likely to work as porters and ragpickers.

The Ghana Statistical Service (2003) finds that a significant proportion (62.8 percent) of street children worked as porters, driver-mates, truck-pushers, errand boys/girls, and menial laborers. Other important occupations were sales workers (16.7 percent) and production/transport/equipment operators (10.6 percent). Proportionally more males were involved as sales workers than were females.

ILO/IPEC Rapid assessment in Bucharest (Alexandrescu, 2002) found that street children worked in the following sectors: begging (44 percent), car washing/parking (17 percent), selling goods (15 percent), loading and unloading goods (9 percent), and household work (8 percent). Ethnicity plays a great role in determining the type of activity a street child does.
For Roma Children, work such as car-washing and collection of waste products were common. For Romanian street children in Bucharest, household work and begging were preponderant.

In Turkey, children mostly engaged in selling goods in the streets. Aksit (2001) finds the following activities for street children: Shoe-polishing, selling paper tissues/chewing gum/water, selling simit (a ring-shaped, savory roll covered with sesame seeds), selling sunflower seeds, selling lottery tickets, selling stationary, cleaning windshields, working in graveyards, scavenging, selling religious books, selling flowers.

**Places of origin**
Poverty is mentioned as one of the major reasons for child migration to the streets. This would mean that street children are more likely to migrate from poor households than from relatively wealthy households. It would not be unnatural to street children migrating from poor parts of the country, but it would be surprising if children incurred substantive migration costs with the goal of working as a street child. In fact, the prevalence of low status groups suggests that, conditional on being in an area where a child can survive as a street child, we expect to see the poorest involved.

The FREPD study (2003) in Bangladesh found that street children originated from all the districts of the country but almost half of the children originated from five districts of Barisal, Comilla, Dhaka, Faridpur, and Sylhet.

Ghana Statistical Service (2003) finds that the largest population of street children comes from the Northern Region (38.1 percent) and Upper East (12.1 percent) regions to the more politically and economically dominating regions in the South.

The ILO/IPEC Rapid Assessment of Child Ragpickers in Nepal (KC et al. 2001), finds that 64 percent of the children migrated to their location whereas the remaining children were natives of the urban centers where they are currently working. Amongst the migrants, the highest proportion (46.9 percent) originates from the hilly and mountain regions. A considerable proportion of child ragpickers, mainly in Kathmandu valley, originated from India. The study also reveals that 77.8 percent of the ragpickers originate from rural areas.

The UCW study of beggars in Dakar reveals that migrant children come from Koalack and Kold which are one of the poorest parts of the Country. Most Talibes come from these parts. Non-Talibes come from other regions, possibly slums, of Dakar.

**C. Agriculture**
Most working children are employed in the agricultural sector, but the proportion of migrant child labor in agriculture is not known. There appears to be a widespread assumption in developing countries that children would not migrate permanently for agricultural work into small scale farms as such opportunities are pervasive in the child's home community. Consistent with this, KC et al (1997) document few child migrants (5 percent) work in the agricultural sector in Nepal, which is usually small-scale. Apart from this study, we did not identify other studies of involvement of independent migrant children in small-scale farms. However, large scale agricultural farms and plantations are known to hire huge volumes of
migrant workers to work for them, especially during harvest times when labor demand is high. In such cases, these farms are likely to employ large numbers of child independent migrants as well.

Sugarcane, cocoa and cottonseed farms appear to be the main employers of migrant child workers. These farms can be large and often recruit huge volumes of migrants for work during harvesting seasons. Migrants often come in with their families and children often work alongside their parents in the farms. These migrations are temporary and migrants often return to their origin after the harvesting season ends. Thus, the demand for child migrant labor in agricultural sector is seasonally variable whereas the spatial location of the origin and destinations (the plantations) are more or less fixed. Children (along with other laborers) often go to same plantations every year during harvest seasons. Most of the spike in labor demand is filled with migrant laborers and migrant child laborers some of whom are independent.

Child workers in these farms can work in processes directly related with farming or in petty chores and activities in and around the temporary settlement areas. For instance, they could work as vendors and helpers in hotels and restaurants near the settlements. However, this section particularly focuses on children working directly in process of cultivation.

Estimates and prevalence
We are not aware of any studies that document wide scale use of independent child migrants in agriculture, although seasonal migrant labor of both children and adults appears pervasive. Table 10 shows the available estimates of children working in various sectors of agriculture in which the incidence of child independent workers are most likely. In this section, we discuss some of the studies in detail.

Table 10: The Prevalence of Children in Agriculture Sector in Various Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Sub-Sector</th>
<th>Study Agency</th>
<th>Study Type</th>
<th>Year</th>
<th>Sample Size</th>
<th>Estimated Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td>Sugarcane</td>
<td>ILO/IPEC</td>
<td>Rapid Assessment</td>
<td>n/a</td>
<td>9,860</td>
<td></td>
</tr>
<tr>
<td>El Salvador</td>
<td>Fisheries</td>
<td>Unknown</td>
<td>2004</td>
<td>n/a</td>
<td>10,085</td>
<td></td>
</tr>
<tr>
<td>El Salvador</td>
<td>Sugarcane</td>
<td>Unknown</td>
<td>2004</td>
<td>n/a</td>
<td>30,000</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>Hybrid Cottonseed Farms</td>
<td>Venkateswarlu</td>
<td>Survey</td>
<td>2007</td>
<td>~416,460</td>
<td></td>
</tr>
<tr>
<td>Turkey</td>
<td>Cotton</td>
<td>ILO/IPEC study in Karatas</td>
<td>Baseline Survey</td>
<td>2003</td>
<td>6,387</td>
<td></td>
</tr>
<tr>
<td>Turkey</td>
<td>Seasonal Agriculture ILO/IPEC</td>
<td>Baseline Survey</td>
<td>2003</td>
<td>n/a</td>
<td>160,000-240,000</td>
<td></td>
</tr>
<tr>
<td>South Africa</td>
<td>Agriculture</td>
<td>SAAPAWU</td>
<td>Unknown</td>
<td>1997</td>
<td>70,000</td>
<td></td>
</tr>
</tbody>
</table>

Since most of child migration for agriculture occurs in large plantations, it is likely that the incidence of child migrant labor in agriculture reflects the geographical distributions of such farms. It is unlikely to find child migrants in this sector in urban centers due to obvious lack of large-scale farming lands. These farms, and therefore child migrants in agricultural sectors are usually found in rural or semi-urban areas with good natural endowment for production of large-scale crops. Below, we discuss some of the estimates available regarding the prevalence of migrant child labor in agriculture sector.

ILO/IPEC conducted a rapid assessment of child labor in sugarcane farms in two districts of Bolivia, Santa Cruz and Tarija (Davalos 2002). Within Santa Cruz, the sugarcane growing
areas includes the municipalities of Santa Cruz de la Sierra, La Guardia, El Torno, Cotoca, Warnes, Portachuelo, Montero, Mineros and General Saavedra, and within Tarijra, sugarcane is grown in the municipalities of Barmejo and southern Padcaya. These areas mobilize a large volume of workers and their families from May to October for harvest season. The rapid assessment estimates about 7,000 children under 18 amongst 30,000 individuals working in Santa Cruz and about 2,860 children under 18 amongst 5,500 workers in Tarijra sugarcane harvest farms. Most of these children live and work with their (migrant) parents although 18.2 percent of boys and 4.8 percent of girls are not living with their families.

In another study, Venkaterswarlu (2007) estimates nearly 416,460 children under 18 working in cottonseed farms in Gujarat Andhra Pradesh, Tamil Nadu, and Karnataka states. These states account for nearly 92 percent of the total production area in India. Gujarat state, which is the largest cottonseed production area in the country, has nearly 175,260 children employed in this sector. Roughly 80 percent (78.2 percent in Andhra Pradesh, 78.6 percent in Karnataka, 85.3 percent in Tamil Nadu, 82.4 percent in Gujarat) of the total labor in the surveyed farms are hired and amongst the hired labors, there is high use of migrants in Tamil Nadu (82.8 percent) and Gujarat (83.4 percent) states and lower use of migrants in Andhra Pradesh (17.4 percent) and Karnataka (7.5 percent).

An ILO/IPEC Baseline survey (Gülçubuk, Karabiyyik and Tanr, 2003) of child labor in cottonseed farms estimates about 35-40 percent of 800,000 – 1,200,000 migrant agricultural workers in Turkey are children aged 5-17. The survey estimates about 160,000- 240,000 child migrants aged 6- 14 that are involved in seasonal agriculture in Turkey. The survey focused on cotton cultivation in Karatas District of Adana, which has the most land devoted to cotton cultivation in all provinces of Turkey. The survey interviews 210 children from 119 tents in 8 out of 47 villages in the district of Karatas. This survey is representative of 6,387 children under 18 in the cotton cultivation sector of Turkey.

Rural-rural migration across Mexico’s southern border sustains a range of fruit and other production. Sin Fronteras (2005) estimates some 10 percent of agricultural migrants are 14-17 years old, and are mostly boys. Romero et al (2006) also finds that internal migration in Mexico for agricultural wage work, which involves around 3.1 million workers, and finds that half of the workers are migrants. Amongst the migrant children aged 6-14, they find that about 58 percent work.

In Cote d’Ivoire, a baseline of producers’ survey (IITA, 2002) of cocoa farmers indicated that 0.94 percent of farmers employed children as permanent full-time workers. Based on this an estimated 5,120 children (amongst 61,600) adults were working as full-time permanent workers. In a similarly survey in Ondo State of Nigeria, 1.1 percent of farmers employed children as permanent full-time workers which. Based on this estimate, 1,220 children are working in cocoa farms in Ondo State of Nigeria.

**Characteristics of Children in Agriculture: Age and gender**

The gender composition of children working in these agricultural sectors varies by sector and country. From the information available from these surveys, girls are predominant in cotton cultivation whereas boys are more prevalent in sugarcane cultivation. Traditional gender norm seems to have affected this distribution as well since boys concentrate in sugarcane
cultivation, an activity that requires greater physical strength. Contrary to the general notion that older children tend to work more on physically demanding jobs like agriculture, most of the largest proportions of children in these sector studies are aged below 14. Although, as with other sectors, such calculations are sensitive to how the authors define a child.

Only a few sector studies delve on the gender composition of the migrant children working in agriculture. These studies indicate that most of the migrant children working in agriculture are girls. This is particularly true for children working in cotton cultivation. However, the studies show reasonable variation in the share of girls in agriculture. Venkateswarlu's (2007) study of cotton production in India finds that about 70 percent of all children are girls. However, there is some inter-state variation. Girls constitute 73 percent of child workers in Andhra Pradesh, 78 percent in Karnataka, and 59 percent in the states of Tamil Nadu and Gujarat. An ILO/IPEC baseline study of child labor in cotton cultivation in Turkey (Gülçubuk, Karabiyik and Tanir, 2003) observes that only 52.9 percent of the children were girls. The proportion of girls in Turkey is comparatively lower than that of India.

However, gender norms typically associate boys with hard and physically demanding work in farms. Though this was not seen in cotton cultivation, evidence from sugarcane farms in Bolivia is consistent with this idea. Davalos (2002) finds that about two thirds of the working children in Bolivian sugarcane farms are boys. Comparatively, work in sugarcane farms is more physically demanding than work in cotton production, which possibly explains the concentration of girls in the cotton sector and of boys in sugarcane.

In terms of age, children working in large-scale farms were found to be of younger ages than one would expect. Davalos (2002) study in Bolivia finds 9 year olds working in sugarcane farms in Santa Cruz and Tarija. Nearly 50 percent of the children in Santa Cruz and 60 percent of children in Tarija were aged below 14. Younger people comprise a larger share of child worker population in cotton cultivation sector of Karatas district, Turkey (Gülçubuk, Karabiyik and Tanir, 2003). More than 66 percent of the child laborers there were aged below 14.

**Origin**

Most of the child migrants originated from the same regions as that of the farms. Due to seasonal nature of the work, migrants tend to be located near the farms. However, in Africa a considerable degree of child mobility is found across borders as well.

In Bolivia (Davalos, 2002), between 60 to 65 percent of the working families come from the same districts of Santa Cruz and Tariza, while the remaining come from neighboring Potosí and Chuquisaca. Similarly, in Tamil Nadu cotton farms, most of the migrants are from Veelpuram, Velur, Theni, Kadalur, Perambalur and Tiruvannamalai areas of Tamil Nadu State. In Gujarat, migrants belonged to Scheduled Tribe communities coming from southern part of neighboring state of Rajasthan (Dungapur, Udaypur and Khervad) and tribal pockets of Gujarat (Panchmahal, Sabarkantha, and Santrapur). Similarly, an IREWOC study of child labor in the sugarcane sector of Bolivia finds that 60 percent of the sugarcane harvesters are temporary migrants from poor zones with lack of infrastructure, health and education services and labor opportunities.
In the cotton farms of Turkey (Gülçubuk, Karabiyik and Tanir, 2003) most children are born in urban areas (50.8 percent). The majority resided permanently in the Southeastern Anatolia Region, with 58.5 percent of all children surveyed coming from the provinces of Adiyaman, Sanliurfa, Diyarbakir and Gaziantep to Adana to work in cotton farms of Turkey.

The majority of children in the cocoa-growing farms of Cote d’Ivoire (IITA, 2002) originated entirely outside the cocoa-producing zones. The majority of children (59 percent) migrated from Burkina Faso, while the remaining children were mainly Baoulé children (24 percent) originating from Yamassoukro-Bouaké areas of Cote d’Ivoire.

**Characteristics of Children in Agricultural Sector: Ethnicity**

Ethnicity can play an important role in agricultural migration decisions, especially when certain labor force characteristics are correlated with ethnicity. For instance, in India, especially in the northern state of Gujarat, ethnicity is an important correlate of selection into the labor force in cottonseed farms. Scheduled Tribe and other tribal people, considered lower in the traditional Indian caste hierarchy, constitute a majority of migrants to the Gujarati cottonseed farms (Venkateswarlu, 2007). This however, is not the case in other states and the impact of ethnicity is poorly studied in other case studies.

**Networks**

Both migrants and employers use formal and personal networks to find work and workers. In most of the cases there appear to be formal networks with intermediaries who match laborers with farmers looking for workers. Nevertheless, there is some variation across countries in the way farmers recruit workers.

In Gujarat and Tamil Nadu states of India, where much of cottonseed farming is done through migrant labor, the use of labor contractors and agents is popular (Venkateswarlu, 2007). Cottonseed farmers, during harvest times, approach a middleman/agent with their labor demand and pay the agent some advance that includes transportation costs of the laborers to the farms and some wage. The contractor then recruits laborers that work continuously for the entire season. The study does not find direct interaction between the farmers and the migrant laborers. Intermediaries negotiate wages with workers and make sure that they work continually for the entire agreement period. A similar use of intermediaries appears in the cotton farms of Turkey (Gülçubuk, Karabiyik and Tanir, 2003).

Quiroz (2008) also finds the use of contractors in her study of child labor in the coffee sector in Guatemala. She documents that when the harvest period starts, contractors go to villages to recruit workers to the plantation. Entire families, as well as children of all ages, come along. She notes that about half a million children migrate every year with their families to the coastal plantations to work in coffee and sugarcane plantations.

In cocoa-farms of Cote d’Ivoire (IITA, 2002), 41 percent of the children used an intermediary for work whereas 29 percent of the children knew the cocoa farmer for whom they worked and sought employment in their own initiatives. Some of the migrant Ivorian cocoa farmers often went back to their village of origin to negotiate directly with the parents of the child worker (12 percent). However, in Nigeria, recruitment was most common through
sharecroppers, who, as an informal condition of employment, help recruit 50 percent of the workers.

Oftentimes, the process of recruitment comes close to definitions of trafficking. Reports of recruiters using hope and promises to lure children to migrate with them for work abound. For instance, Albertine de Lange (2006), in her study of child migrants in rural Burkina Faso who migrate to work in the Cotton sector, highlights that recruiters often temp children with promises, which often include the promise of a new bicycle and/or new clothes. It is hard, in these situations to distinguish recruitment from trafficking.

D. Mining

Mining is another sector where independent migrant children have been documented. Mining, especially that of gold is considered by many to be an easy way to make quick money. Most children are likely to work in informal small-scale mining rather than a large-scale mining where much of the processes are highly mechanized and skill intensive. Informal and small-scale mining is labor intensive and requires no special skill. Therefore, these mining sites become attractive to children looking for a source of income. Oftentimes small-scale mining sites are surrounded by a hub of temporary households full of migrants looking for jobs. It is very likely to find child independent migrants in these camps.

Children can be involved in different activities directly related to mining. Children might be involved 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. 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.

Table 11 shows some of the estimates available on children working in mining sectors in different parts of the world. In the following sections, we examine some of the studies on informal mining that involve migrant children.

<table>
<thead>
<tr>
<th>Country</th>
<th>Study Agency</th>
<th>Study Type</th>
<th>Year</th>
<th>Sample Size</th>
<th>Age Range</th>
<th>Estimated Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td>ILO and UNICEF</td>
<td>n/a</td>
<td>2004</td>
<td>n/a</td>
<td></td>
<td>3800</td>
</tr>
<tr>
<td>Burkina Faso &amp; Niger</td>
<td>ILO/IPEC study in Sahel Region</td>
<td>n/a</td>
<td>2006</td>
<td>n/a</td>
<td>under 18</td>
<td>200,000</td>
</tr>
<tr>
<td>Ghana</td>
<td>ILO/IPEC</td>
<td>n/a</td>
<td>2006</td>
<td>n/a</td>
<td>under 18</td>
<td>10,000</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Kelian Dalam region</td>
<td>Rapid Assessment</td>
<td>2004</td>
<td>36</td>
<td>under 17</td>
<td>223 identified</td>
</tr>
<tr>
<td>Pakistan</td>
<td>ILO/IPEC study in Chakwal and Chirat mines</td>
<td>Baseline Survey</td>
<td>n/a</td>
<td>174</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Tanzania</td>
<td>ILO/IPEC</td>
<td>Rapid Assessment</td>
<td>2002</td>
<td>120</td>
<td>80.30%</td>
<td>19.70%</td>
</tr>
<tr>
<td>Tanzania</td>
<td>ILO/IPEC</td>
<td>Rapid Assessment of Quarrying</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>
Estimates and prevalence
Informal mines, where children are most likely to work, are typically located in rural settings and often far from large settlements and cities (Zambia being one notable exception). Mines often spawn a temporary settlement of migrants who work in the mines.

An ILO/IPEC Rapid Assessment of child labor in Mining (Mwami et al 2002) studies major mining sites in Tanzania. The Assessment focuses on three mining areas of three regions of Tanzania: Mlimanjiwa area of Chunya district of Mbeya region, Ngapa area of Tunduru district of Ruvuma region, and Mgusu area of Geita district of Mwanza region. These locations are rural and far from large settlements and big cities. The study interviews 120 children in these three mining sites and estimates that between 70-150 children were involved in Mlimanjiwa, 100-150 children in Mgusu, and 40-100 children were involved in various activities in mining sites of Ngapa. The study notes a higher inflow of children during school vacations. Most of the children in Ngapa were independent migrants whereas most children in other sites mentioned moving with their parents.

Baas (2008) estimates that about 700 children are involved in mining in Potosí who work inside the shafts. She estimates that many more children, several hundreds more, living in Cerro Rico mountain – her study area – help their parents sort through the debris for gold or engage in other over-ground activities. She also emphasizes the seasonality of mining. She observes that children move out when they find a better source of income that involves less risk. She observes that a large proportion of children drop-out from school to engage in mining in Potosí and that about half of these dropout children are migrants.

An ILO/IPEC (2006) report estimates that 30-50 percent of miners in Sahel region (Burkina Faso and Niger) of Africa are children under 18. This fraction would be about 200,000 – 500,000 child miners across the two countries. A large 70 percent of them are under 14. Virtually all gold-mining communities in the Sahel region are in remote, exceedingly poor rural areas. Berge (2008) also notes that his study region Cajamarca, Peru is one of the poorest regions of the country. He also highlights more use of child labor in more informal, artisanal mining settings. The ILO/IPEC (2006) report also estimates that about 10,000 children involved in various parts of Ghana, much of them in gold mining mostly in small-scale mining.

ILO/IPEC Rapid Assessment of child labor in mining sector in Indonesia (ILO 2004) studies mining activities in Kelian Dalam village of East Kalimantan province. The village is located two hours from the district city. The study identifies 223 children working in gold mining sector in the village which had 345 children younger than 17. The research team finds that much of these numbers are informal miners who take mining as a pass-time activity. The study found 36 children who were actual miners and were working in the shafts.

ILO/IPEC Baseline Survey in Coal mines of Pakistan (Zaidi et al, 2004) estimate a total of 357 children under 18 in coalmines of Chakwal and 95 children under 18 in coalmines of Chirat.

Characteristics of Child miners: Age and gender
Males dominate females in mining activities. It is possibly because of the physical nature of mining activities and the associated gender norms that account for this variation. The
incidence of child miners increases with age though in some cases most of the child miners are aged below 15.

In Tanzania (Mwami et al, 2002), there are fewer girls (19.7 percent) than boys (80.3 percent) working as child miners. In one of the mining sites in Ngapa, the district officials had actually prohibited girls from working in the mines in an effort to keep them from engaging in prostitution related to mine sites. But this does not account for the difference in gender composition. Boys dominated girls in the other two mining sites as well. The study indicates higher presence of older children. About 59 percent of the children were aged 14-17, and 32.8 percent were aged 10-13 while 8.2 percent were aged 7-9.

Baseline survey of coal miners in Pakistan (Zaidi et al, 2004) found no girls in their surveyed coalmines. Most of the children in both mining sites of Chirat and Chakwal were aged 15-17 (82.1 percent and 88.5 percent respectively). About 2.1 percent children in Chirat were aged 5-9 whereas no children were under 10 in Chakwal.

Origin
In most of the cases, child migrants originated from within the rural region of the mines or rural areas in neighboring parts of the mining site. However, some children moved considerable distances as well, especially in Sahel region of Africa.

In Tanzania (Mwami et al, 2002), 48.2 percent of children originated from districts within the region of the study area and 36.8 percent migrated from neighboring districts of the study area. In Sahel region, majority of children come from villages within the area, often with 10km of the site, although a substantial number travel considerable distances within or even outside the country (ILO/IPEC 2006).

E. Carpet Sector in India and Nepal
Carpet production is associated with child labor in South Asia, especially in Nepal and India. In these countries, these sectors are believed to absorb large amounts of migrant child labor and thus we will review this sector briefly.

An ILO/IPEC Rapid Assessment in Nepalese carpet sector (KC et al, 2002) study the prevalence of child labor in carpet sectors in Nepal through a sampling frame drawn from 12 villages of 3 districts (Kathmandu, Bhaktapur, Lalitpur) where most (98 percent) of the carpet production was concentrated. The study estimates that a total of 7,689 child laborers under 18 years of age. The study finds that child migration is predominant (96.3 percent) in the industry. Amongst the migrants, the study finds that majority were boys (57.8 percent), whereas amongst the non-migrants, overwhelming majority are girls (72.7 percent). Most of the children (78.2 percent) in the carpet factories were aged 15-17.

The study also shows that a large proportion (58.5 percent) of children working in carpet factories were Tamangs (a caste group) followed by Magar, Terai groups and Rai (Tamang, Magar, and Rai are caste groups that live in the hilly regions surrounding Kathmandu valley). The study indicates that most of the migration occurs from surrounding hilly districts with a good transportation access. The survey indicates the use of well-established networks, which
is especially strong among Tamangs. Children in the survey reported migrating with other relatives (44 percent), friends (21 percent) and parents (11 percent).

Carpet weaving in India also has a high incidence of child labor and a sizeable proportion of migrant child laborers. Carpet production mainly takes place in states of Uttar Pradesh (core districts are Bhadohi, Varanasi and Mirzapur), Bihar and Madhya Pradesh (Srivastava, 2005). Carpet production has started taking place in Bihar and Jharkhand states as well in districts Garhwa, Samastipur, Palamau, Madhubani, and Saharsa which previously used to supply child labor to the core districts (Sharma 2002). Sharma estimates that about 19 percent of all workers in carpet factories are children, of which only 7 percent were girls.

5. RESEARCH GAPS AND PRIORITIES

We understand very little about independent child migrants.

The challenges begin with data. There are many small case studies, but nationally representative estimates need to be developed. The roster and fertility methods described herein have an advantage in that they make use of existing data resource, but dedicated surveys aimed at collecting information on migrants is necessary for better formulating research questions and identifying policy priorities. Development of international standards on how to measure independent child migration is a priority, and efforts to incorporate this definition into future censuses, labor force surveys, and multipurpose household surveys should be a priority for outreach. One simple concept that seems feasible to implement with many existing surveys might be an individual under age 18 who has migrated in the last 5 years and is not co-resident with a parent. A simple question about the circumstances of the child’s migration would distinguish between independent child migrants, migrants accompanied by a parent, and orphans. Incorporation about more detailed questions about the child’s migration status into fertility surveys and household roster enumeration would also permit the identification of both origin and destination areas.

Better identification of independent child migrants in national data will help researchers shed more light on why children migrate independently. The current conventional approach of qualitative interviews of a non-representative population puts a lot of emphasis on push factors such as the child’s family poverty. However, there are many poor children in countries where child independent migrants are most prevalent, and not all of those children migrate alone. The current qualitative approach desperately needs companion statistical research with nationally representative data. Moreover, as the analytical model herein makes clear, asking a respondent to attribute causation to a single cause is necessarily misleading for such a multi-faceted decision.

One place where more qualitative attention could be paid is in the employer studies. Many studies document the characteristics of migrants in various industries, but too little rigorous attention is paid to the question of why employers hire independent child migrants. Sometimes it appears that independent child migrants are hired like any other employees (in some forms of agriculture), but other times it seems that employers especially want to target independent child migrants (as with domestics). The shallow answer to the question of why employers want to hire independent child migrants is that they are more easily manipulated
and exploited. That may be true, but why does this attribute more salient for some industries than others? In addition to this issue, some sectors such as construction and manufacturing appear to have received very little formal analysis.

Understanding migration networks and how children or their agents acquire information about migration possibilities also appears to have received less attention than is needed. For domestics and agriculture, it appears that migration networks are critical to match employers and workers. This is probably true in other, less visible sectors as well. Understanding these networks is important, especially for designing policy aimed at mitigating pull factors that encourage children to migrate.

A better understanding of the correlates of independent child migration through better data collection and an improved understanding of why independent child migrates are employed in certain sectors is important for the design of programs to either deter child independent migration or mitigate its risks. Integrating policy evaluation directly into research is a particularly promising avenue to develop a broader understanding of how to influence child independent migration. It is critical that researchers be involved in the design and implementation of projects to influence child migrants at the project’s inception in order to maximize the information that can be learned from policy studies.

Issues of child labor and early marriage also appear closely linked with independent child migration, and one important outcome of research on independent child migrants should be to integrate these lines of research.
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