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Understanding Children's Work
An Inter-Agency Research Cooperation Project

Measuring child labour:

Discussion note for country consultation
in Bangladesh

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WORKING DRAFT

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CONTENTS

1. INTRODUCTION

1. Since the international labour standards contain several elements of flexibility left to the countries that ratify them as regards the detailed definition of what is child labour to be eliminated, it is not an easy task to decide what should be measured statistically as child labour. This complicates the development of comparable and unambiguous estimates of child labour in countries where it is commonly known that children are at work, and also detracts from the credibility of numbers published. Accordingly, at the recently concluded 17th International Conference of Labour Statisticians (ICLS), there was unanimous demand by participants for an agenda item on child labour statistics at the 18th ICLS, which is likely to meet in the last quarter of 2008.

2. In this context, a draft resolution on child labour statistics is currently under development for submission to the 18th ICLS. The resolution would bring out the 'conceptual' issues in specifying what constitutes child labour and what should be excluded. In the light of what is feasible in practice, the draft resolution would also suggest an 'operational' statistical definition of child labour that may be applied for measurement purposes in the field. In addition, the draft resolution would provide guidelines in terms of statistical tools on how child labour may be verified and measured, and also indicate the parameters within which countries may have flexibility to adapt and apply the contents of the resolution to suit their national requirements. In turn, all such information would facilitate the monitoring of ILO member states' compliance with international labour standards in a transparent manner.

3. In specific terms, the draft resolution for consideration by the 18th ICLS is designed to: (a) encompass all forms of child labour, including hazardous work and children in other WFCL activities; (b) provide methodological guidelines to ensure comparability of child labour statistics across countries and over time; (c) assist in improving the monitoring by countries of their compliance to international child labour standards; and (d) facilitate the measurement of selected aspects of progress in achievement of the MDGs, and in implementation of the Decent Work agenda of ILO.

4. This note discusses some of the issues arising when attempting to define a statistical standard for child labour in the specific context of Bangladesh. It aims to give an overview of the measurement challenges encountered, of the empirical and other evidence that can be used to address such challenges and of the implications in terms of child labour estimates.

5. The note provided a technical background for the country consultations undertaken by ILO-IPEC and UCW with national counterparts in April 2007. The consultations included counterparts from the Bureau of Statistics (BBS), Ministry of Planning, Ministry of Primary and Mass Education, Ministry of Labour and Employment, UNICEF and ACPR (Associates for Community and Population Research, a research organisation). The objectives of the consultations were to promote discussion of child labour measurement and to obtain feedback from national governments on the open questions. This feedback will constitute a relevant part of the process leading to the resolution that ILO will submit to ICLS in 2008.

6. This revised version of the note reflects verbal feedback received during the consultations as well as subsequent written feedback on the original draft note received from the Bureau of Statistics. The note should not, nonetheless, be construed as reflecting the official views of the Government of Bangladesh.

7. The paper is structured as follows. The next section sets out general challenges and possible ways forward in developing a statistical measure of child labour. Section 3 then

looks in detail at children's productive activity, and specifically at how the broad distinctions between family/non-family and economic/non-economic work reflect underlying differences in the nature, intensity and impact of work performed by children. Section 4, building on this discussion, then returns to the question of child labour measurement, looking specifically at how the three main international legal standards for child labour (C138, C182 and CRC) might translate into statistical terms for the 7-11 years, 12-14 years and 15-17 years age groups. Simulated child labour estimates are presented for each of these groups based under different underlying statistical definitions.

2. TOWARDS A STATISTICAL MEASURE OF CHILD LABOUR: GENERAL CONSIDERATIONS

8. How many Bangladeshi children are involved in child labour? This question, while vital for the purposes of policy design and monitoring, is by no means straightforward. A number of underlying questions need to be addressed first: what types of children's productive activity should be considered, in what settings and performed beyond what level of intensity. While international child labour norms provide a broad legal definition of child labour (see Box 1), there is at present no internationally agreed statistical measurement standard of child labour to provide guidance on these issues.

9. ILO Convention No. 138 (C138) on minimum age covers "employment or work", and the common practice in published child labour statistics has been to use "economically active" as proxy for this concept of "employment or work." Two main questions, however, have been raised concerning this approach, the first relating to work

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Box 1. **International legal standards relating to child labour**

Three main international conventions – the UN Convention on the Rights of the Child (CRC), ILO Convention No. 182 (Worst Forms) and ILO Convention No. 138 (Minimum Age) – define child labour in legal terms and provide a framework for efforts against it.

ILO Convention No. 138 (Minimum Age) targets as child labour 1) all forms of "employment or work" carried out by children below a minimum cut-off age (at least 12 years in less developed countries); 2) all forms except "light" employment or work carried out by children below a second higher cut-off age (at least 14 years in less developed countries); and 3) any type of employment or work which by its nature or the circumstances in which it is carried out is likely to jeopardise the health, safety or morals of young persons below the age of 18 years..

ILO Convention No. 182 (Worst Forms) targets as worst forms of child labour (a)All forms of slavery or practices similar to slavery, such as the sale and trafficking of children, debt bondage and serfdom and forced or compulsory labour, including forced or compulsory recruitment of children for use in armed conflict; (b) The use, procuring or offering of a child for prostitution, for the production of pornography or for pornographic performances; (c) The use, procuring or offering of a child for illicit activities, in particular for the production and trafficking of drugs as defined in the relevant international treaties; (d) Work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children.

The *UN Convention on the Rights of the Child (CRC)* recognises the child's right to be protected from forms of work that are likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development. In order to achieve this goal, the CRC calls on States Parties to set minimum ages for admission to employment, having regard to other international instruments.

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in family settings and second relating to work outside the System of National Accounts (SNA) production boundary (see Box 2 for explanation of terminology).

10. While children's family-based economic activity is included in most published estimates of child labour, family-based work (work by unpaid family members) is often excluded from labour legislation at the country level and therefore not covered by minimum age rules.[1] This suggests that many countries perceive work performed by

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[1] Unlike some earlier ILO Conventions on minimum age, C138 does not explicitly exclude family undertakings from its scope, but allows a State to exclude specific categories (such as family undertakings) from its scope of application as long as the work done is not hazardous (Article 4 of C138). However, "home work" as such is covered by national legislation in some countries (not necessarily the general labour law) and is subject of a special ILO Convention (No.177).

children within the family unit as different from children's productive activities performed outside the family, and raises the question of whether this perceived difference should also be reflected in any statistical measure of child labour.
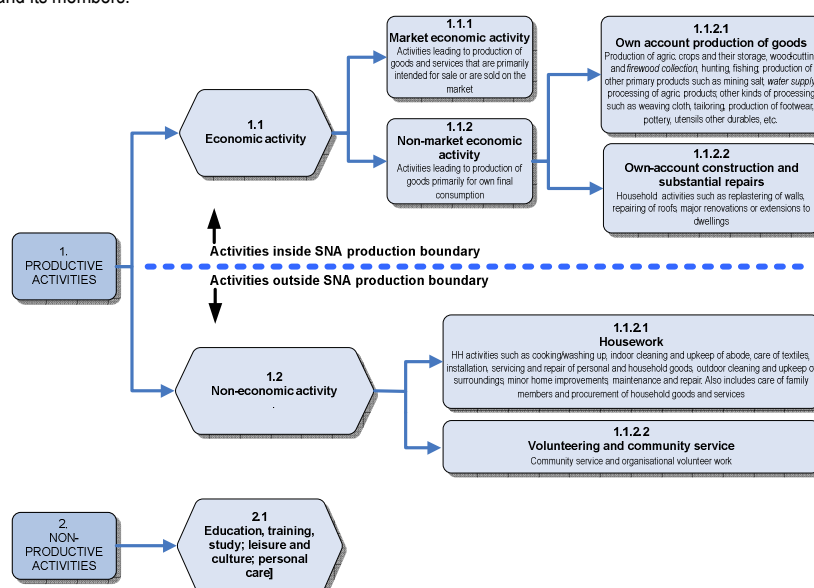
11. Separately, there has been concern expressed among some actors against child labour, including UNICEF, that non-economic activities (principally household chores within the child's own family) – currently excluded from most statistical measures of child labour – might in some cases involve safety and health hazards or hinder schooling in a similar way to economic activity. Hence there is also question as to whether non-economic activity should be considered in child labour measurement and, if so, under what conditions or beyond what time threshold.

12. Underlying these questions are two alternative ways forward in terms of developing a child labour measure – one based on a statistical distinction between productive activity located inside and outside the family (as is common in national legislation relating to child labour), and the other based on a statistical distinction between economic and non-economic productive activity (as is common in published statistics on child labour) (Figure 1a). Whichever approach is selected, child labour measurement requires drawing a second statistical distinction between acceptable forms of work and child labour *within* each category of children's productive activity (Figure 1b). As explained in further detail in Section 4 of this report, the first approach would entail applying different criteria to family and non-family productive activities in distinguishing acceptable work by children from child labour, while the second approach would entail applying different criteria to economic and non-economic productive activities in distinguishing acceptable child work from child labour.

Box 2. **A note on terminology**

In this study, productive activities are defined as all activities falling within the general production boundary, i.e., all activities whose performance can be delegated to another person with the same desired results. This includes production of all goods and the provision of services to others within or outside the individual's household.
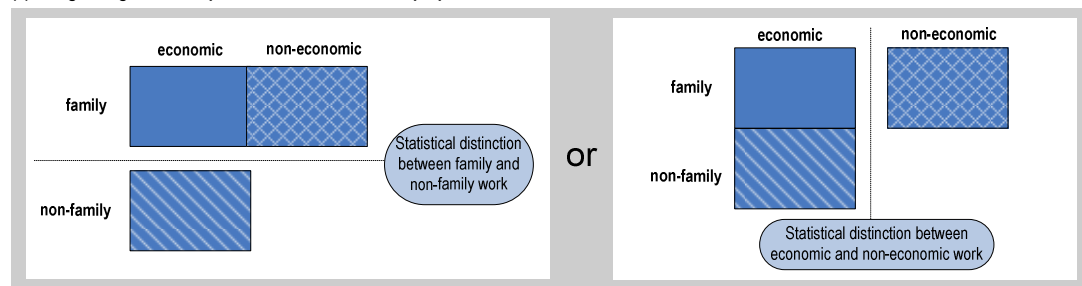
The study distinguishes between two broad categories of productive activity– economic activity and non-economic activity. The definition of **economic activity** used in the study derives from the System of National Accounts (SNA) (rev. 1993), the conceptual framework that sets the international statistical standards for the measurement of the market economy. It covers all market production and certain types of non-market production, including production of goods for own use. **Non-economic activity** is defined as any productive activity falling outside the SNA production boundary. It consists mainly of work activities performed by household members in service to the household and its members.
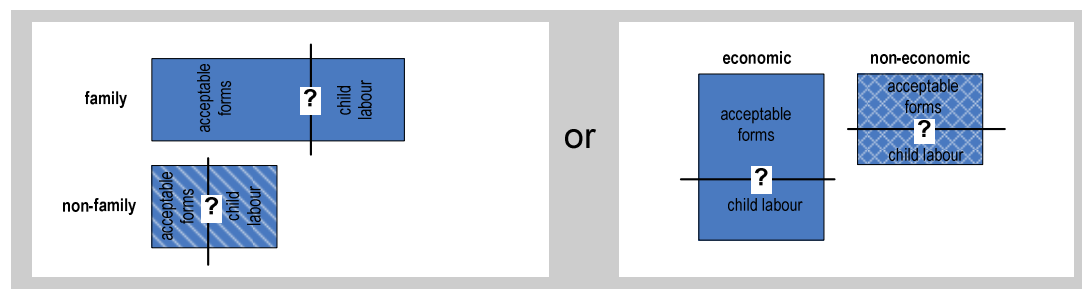

A distinction is also drawn between **family** and **non-family** productive activity. The former refers to all forms of productive activity that takes place within a family setting, independent of whether it is economic or non-economic in nature. The latter refers to productive activity located outside the family, and is economic in nature.

Figure 1. **Children's productive activities and child labour measurement**
(a) Categorising children's productive activities for the purposes of child labour measurement

(b) Drawing statistical distinctions between acceptable forms of work and child labour within categories of children's productive activities

13. Which of the two approaches are most relevant for child labour measurement? The answer depends in large part on the extent to which the broad distinctions between family/non-family or economic/non-economic work reflect underlying differences in the nature, intensity and impact of work performed by children. If, for example, it could be shown that non-family work is significantly more harmful to health and/or education than family work, a case could be made for treating the two work settings differently for the purposes of child labour measurement. Likewise for economic and non-economic activity. The next section looks in detail at children's productive activity in an attempt to address these issues.

3. CHILDREN'S PRODUCTIVE ACTIVITY

3.1 Level of child involvement in productive activity

14. Table 1 illustrates the wide variety of possible estimates of child involvement in productive activity depending on the criteria applied. Looking only at child involvement in economic activity for at least one hour per week – the most commonly-used proxy for children's work – yields an estimate of about 15 percent. But if children performing non-economic activity are also considered, the estimate rises to 33 percent. Restricting our focus only to productive activity performed outside the household (and staying with the one-hour threshold) would yield an estimate of only five percent. Applying a slightly higher hours threshold, e.g., of one hour per day rather than one hour per week, would yield sharply lower estimates of children's work in some categories (non-economic and family activity) but have little effect on estimates in others (economic and non-family activity).

Table 1. **Measuring child involvement in productive activity (% children aged 10-15),[a] by hours thresholds**

Hours threshold	Distinction by technical nature			Distinction by work setting		
	Economic	Non-economic	Total[b]	Family	Non-family	Total[c]
>1	14.9	19.6	33.4	29.3	5.3	34.6
>7	14.8	15.9	29.6	24.3	5.3	29.6
>14	11.9	3.6	14.5	9.5	5.1	14.6
>21	6.4	1.4	7.2	3.6	4	7.6
>28	4.9	0.8	5.2	2.5	3.2	5.7

Notes: (a) Children below the age of 10 years are not included because of data limitations. Specifically, no data are available on involvement in non-economic activity for children below 10 years of age. (b) "Total" refers to the % of children performing economic and/or non-economic activity for each hours threshold; (c) "Total" refers to the % of children performing family and/or non-family activity for each hours threshold.

Source: UCW calculations based on *Bangladesh SIMPOC survey 2002-2003*

15. But the divisions between economic/non-economic productive activity or alternatively between family/non-family productive activity are not clear cut, as children can be involved in different categories of productive activity at the same time. Of all children performing economic activity, for example, seven percent are also spending at least some time each week performing non-economic activities. Similarly, of all children performing non-family work, seven percent are also involved in some work activities each week within their families. This introduces another question in terms of measurement – the combinations of work intensity that should be selected when measuring the work involvement of children whose work crosses the economic/non-economic or family/non-family boundaries. Children's involvement in productive activity by different hours combinations is shown in Table 2.

Table 2. **Measuring child involvement in productive activity (% children aged 10-15), by combinations of hours in economic/non-economic activity and in family/non-family activity**

	Distinction by technical nature of work							Distinction by work setting					
Non-eco / Eco.	0	≥1	≥7	≥14	≥21	≥28	Family / Non-family	0	≥1	≥7	≥14	≥21	≥28
0	66.6	18.5	14.8	2.6	0.8	0.4	0	65.3	29.3	24.3	9.5	3.6	2.5
≥1	13.8	1.2	1.1	1.0	0.6	0.4	≥1	5.0	0.4	0.4	0.3	0.3	0.3
≥7	13.7	1.1	1.1	1.0	0.6	0.4	≥7	5.0	0.3	0.3	0.3	0.3	0.3
≥14	10.9	1.0	1.0	1.0	0.6	0.4	≥14	4.8	0.3	0.3	0.3	0.3	0.3
≥21	5.8	0.6	0.6	0.6	0.6	0.4	≥21	3.8	0.2	0.2	0.2	0.2	0.2
≥28	4.5	0.4	0.4	0.4	0.4	0.4	≥28	3.0	0.2	0.2	0.2	0.2	0.2

Source: UCW calculations based on *Bangladesh, SIMPOC 2002-2003*

16. This brief discussion illustrates that the measurement of children's involvement in productive activity also depends on decisions relating to which categories (or combinations of categories) of productive activity and which hours thresholds are considered. On what basis should such decisions be made? The answer of course depends on what specifically one is attempting to measure. If the objective, for example, is to measure children's contribution to national output, then the estimate could be limited to children's involvement in activities falling within the SNA production boundary, regardless of the setting of these activities. Similarly, if the objective is to measure children's participation in the formal labour force, the estimate could centre on children's involvement in economic activities falling within the formal sector.

17. But the purpose here is quite different – to measure children's involvement in the subset of productive activities that is injurious, negative or undesirable, i.e., children's involvement in productive activities constituting child labour according to the international conventions and to national legislation. For this purpose, additional information is needed on the nature, intensity and above all the impact of children's work.

3.2 Family and non-family work

18. The distinction between family and non-family productive activity comes up frequently in national child labour legislation and in discussions surrounding the concept of child labour. While children's family-based economic activity is included in most published estimates of child labour, family-based work is not always included in child labour legislation at the country level. This section examines differences between family and non-family work in terms of nature, intensity and impact in attempt to address whether the family/non-family distinction is relevant for the purposes of child labour measurement.
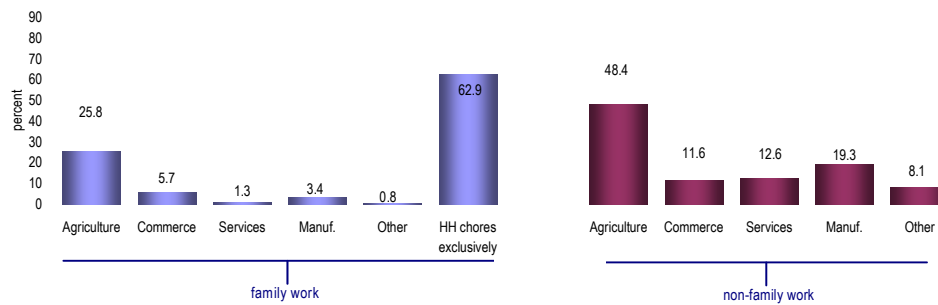
19. Figure 2 breaks down family and non-family work by specific work sector/type. At first glance, it suggests important differences in the composition of children's work in the two settings. Work within the family setting is concentrated overwhelmingly in household chores while work outside the family is distributed among the four main industries, with agriculture and services predominating. But when looking at family work, an additional sub-distinction between economic work and non-economic work (i.e., household chores) is also important.[2] When household chores are excluded from consideration, the composition of family and non-family work is less dissimilar, with agriculture important in both settings but services and manufacturing playing a much more important role in non-family work (Figure 3). This suggests that in terms of the composition of children's work, the most relevant distinction is not between family and non-family work, but rather between economic (regardless of its setting) and non-economic work.

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[2] As explained in Box 2, family work cuts across the SNA production boundary, consisting of both productive activity that is economic in nature and productive activity that is non-economic in nature. Non-family work, on the other hand, falls only within the SNA production boundary, i.e., is only economic in nature.
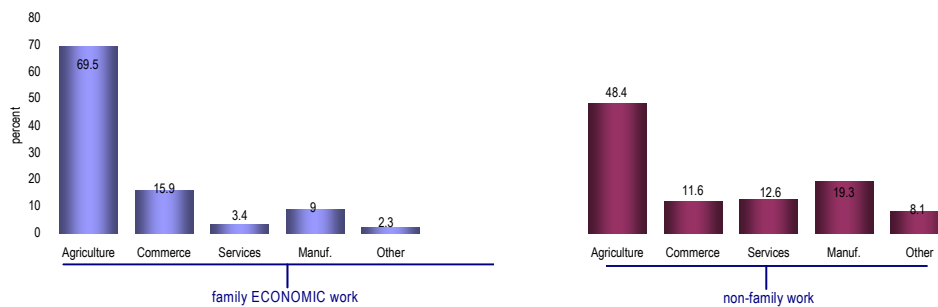
Figure 2. **Main types of family and non-family work performed by children**

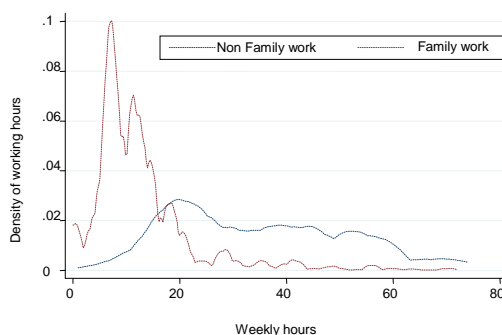Source: UCW calculations based on *Bangladesh SIMPOC survey 2002-2003.*

Figure 3. **Main types of family and non-family ECONOMIC activities performed by children**

Source: UCW calculations based on *Bangladesh SIMPOC survey 2002-2003.*

20. Work intensity is important as an indirect measure of work impact, as longer hours mean less time for school and greater total exposure to any hazards or health threats in the workplace. How does family and non-family work differ in terms of work intensity? Children performing economic family-based work activities put in an average of 21 hours per week on these activities, while children involved in economic non-family work activities spend an average of 35 hours performing them. The distribution of family and non-family work by working hours is shown in Figure 4. But it should be kept in mind that these time estimates reflect differences in hours spent in the two work settings, not differences in the working hours of individual children, some of whom work in both settings. Another way of looking at work intensity is to divide children into those performing only family work, those performing only non-family work and those performing both. Looked at this way, differences in the intensity of family work and non-family work are sharper: children performing only non-family work put in almost three times as many weekly working hours compared to their counterparts performing only family work (Table 3).

Figure 4. **Distribution of working hours by working setting**

Source: UCW calculations based on *Bangladesh SIMPOC survey 2002-2003*

7

Table 3.   **Average weekly working hours by work setting, age and sex**

Child age in years	Children working only in family work			Children only in non-family work			Children working in family <u>and</u> non-family work		
	male	female	Total	male	female	Total	male	female	Total
7	7.7	7.4	7.5	46.9	21.0	32.6	20.4	7.7	14.1
8	10.7	9.7	10.1	39.3	27.5	35.5	17.7	13.3	15.7
9	11.7	10.5	11.0	34.1	30.6	33.2	28.6	27.2	27.8
10	12.4	10.5	11.5	33.9	27.9	33.4	22.3	19.5	21.1
11	13.1	10.2	11.6	36.8	27.6	34.9	23.5	20.6	22.6
12	14.1	11.5	12.9	33.9	25.9	32.8	26.4	27.2	26.6
13	15.9	14.1	15.0	35.6	29.4	34.7	30.9	21.6	27.0
14	18.0	14.7	16.3	39.1	35.8	38.6	26.2	22.8	25.0
Total	14.2	11.8	13.0	36.1	29.5	35.1	26.0	22.4	24.7

Source: UCW calculations based on *Bangladesh SIMPOC survey 2002-2003*

21. The total time spent in family work masks large differences in work intensity between family economic activity and household chores. The former is performed for an average of 21 hours per week and latter for only 9 hours. The difference in work intensity between family and non-family work falls somewhat when household chores are eliminated from consideration (Table 4), but work inside the family remains considerably less intensive than work outside it.

Table 4.   **Average weekly working hours in *economic* activity, by work setting**

Child age in years	Children in family economic activity			Children in non family economic activity		
	Male	female	Total	male	female	Total
7	22.1	20.9	21.7	46.9	21.0	32.6
8	21.6	21.5	21.6	39.3	27.5	35.5
9	25.7	29.8	27.0	34.1	30.6	33.2
10	25.2	23.3	24.7	33.9	27.9	33.4
11	23.9	22.2	23.3	36.8	27.6	34.9
12	18.5	17.8	18.3	33.9	25.9	32.8
13	20.9	19.5	20.4	35.6	29.4	34.7
14	25.4	22.9	24.5	39.1	35.8	38.6
Total	21.8	20.7	21.4	36.1	29.5	35.1

Source: UCW calculations based on *Bangladesh SIMPOC survey 2002-2003*

22. Of greatest significance for child labour measurement purposes is the question of whether there are differences between family and non-family work in terms of *impact* on health and education outcomes. Rather than looking at indirect measures (like type of work and intensity), it would in principle be better to directly assess the impact of child labour on education outcomes and health. Unfortunately, it is difficult to definitively address the issue of impact in the absence of additional data. In what follows, we present the evidence of the impact on education, given that the information on ill-health/injury was not available.

23. Looking first at health, a complete examination of differences in the health impact of family and non-family work is not possible because, among other things, there are no data concerning the health impact of work for one important category of family workers – those only performing non-economic activity (i.e., only household chores). But data do permit an examination of the correlation between health status and family and non-family *economic* activity. The data lends some support the conventional wisdom that the family is a safer work setting. The incidence density[3] of work-related ill-health or injury is higher for children in non family economic activity (0.34) compared to children in
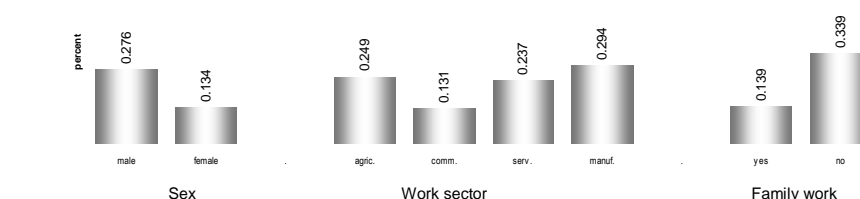
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[3] To take occurrence as well as exposure into consideration, a standard *incidence density* is computed as follows:

$$Incidence\ Density = \frac{children\ injured\ during\ a\ specified\ period\ of\ time}{total\ person\ time}$$

where "total person-time" is cumulated exposure for all the individuals considered. In our case, it is defined as average weekly working hours multiplied by the number of weeks worked during the reference period (assumed to be one year).

family economic activity (0.14) in Bangladesh, although the incidence for both work settings is very low.

Figure 5. **Work-related ill health: incidence density indicator, children aged 7-14 years, by child and work characteristics**
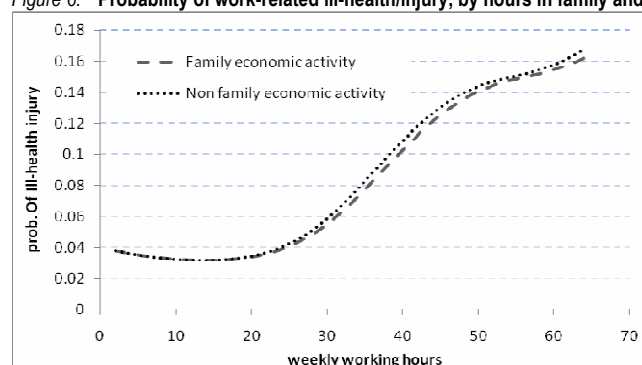

Note: Indicator based on the individual exposure during the reference week.
Source: UCW calculation based on *Bangladesh SIMPOC survey 2002-2003*

24. Simple kernel regressions offer another tool for looking at the differences in the health impact of economic activity conducted within and outside the family. Although kernel regressions essentially constitute reduced form estimates, subject to change if the underlying structure changes, in a separate empirical paper it is shown that in the case of Bangladesh they are consistent with more complex causal estimates (UCW, 2004). Results of the kernel regression estimates, shown in Figure 6, do not suggest that work setting is an important factor in determining the risk of ill-health/injury. Indeed, differences in the probably of ill-health/injury between economic activity conducted inside and outside the family are negligible at all levels of work intensity.

Figure 6. **Probability of work-related ill-health/injury, by hours in family and non-family economic activity**

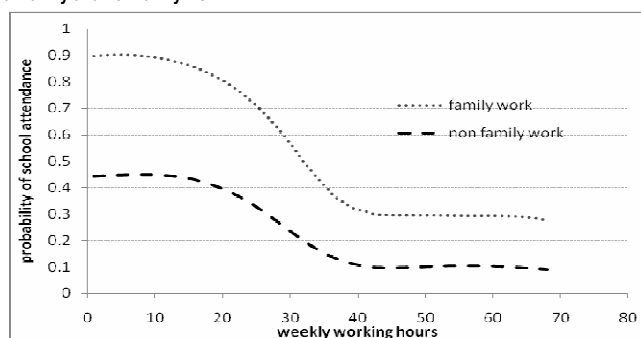Source: UCW calculations based on *Bangladesh SIMPOC survey 2002-2003*

25. Establishing a strict *causal* relationship between work and school attendance is not possible because of the absence of panel or retrospective data.[4] But again, simple kernel regression analysis can be used as a synthetic tool to examine the probabilistic link between children involvement in economic activity and school attendance.[5] Empirical evidence based on kernel regressions indicates that non-family work is associated with a lower likelihood of school attendance than family work at any given level of work intensity (Figure 7a). They also show that additional hours of family work appear to have no impact on school attendance up to about the 10 hours threshold, while additional time in non-family work affects school attendance even at very low hours levels.

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[4] Establishing causality is complicated by the fact that child labour and school attendance are usually the result of a joint decision on the part of the household, and by the fact that this decision may be influenced by possibly unobserved factors such as innate talent, family behaviour and or family preferences. This means that on the basis of cross-sectional data alone it is difficult to know, for example, if it is low talent that induces a child not to go to school and hence start to work, or if it is the preference or need to work that then induces a child to drop out of school. The use of panel data can help to address at least some of these issues and to get firmer results in terms of causality. For further details, refer to UCW Project, *Child Labour and Education For All: An issues paper*, draft discussion paper, Rome, October 2006.
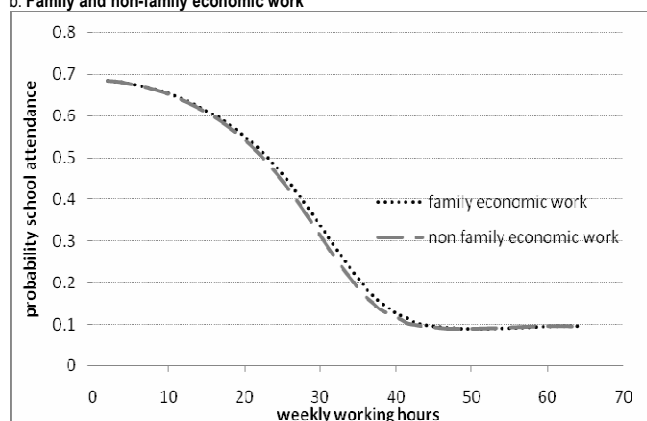
[5] However, it should be kept in mind that kernel regressions are suitable for describing the probabilistic link between variables, but cannot be used to derive strict causal relationships and must therefore be interpreted with care.

Figure 7. **Probability of school attendance by working hours, kernel regression results**

a. **Family and non-family work**

b. **Family and non-family economic work**

Source: UCW calculations based on *Bangladesh SIMPOC survey 2002-2003*

26. However, if we look at the economic activities only (Figure 7b), the difference between family and non family based work becomes negligible, suggesting that the nature of the work might be more relevant than the setting. Unfortunately, the available data do not allow us to draw any more precise conclusion. But again, it suggests that the most relevant distinction is between economic and non-economic activities rather than work setting.

27. What then can be concluded concerning the relevance of a measurement approach based on the family/non-family distinction? Such an approach would stress that it is the setting of work, rather than its nature that is relevant for identifying activities harmful to children. It is intuitively appealing to assume that working with parents or relatives is less "damaging" than working outside the family. This possible effect, however, even if it were present, seems to be outweighed by the effects of the nature of the work. In fact, the empirical evidence presented above concerning work composition, intensity and impact does not, on balance, indicate the family/non-family distinction is relevant for the purposes of child labour measurement.

28. The differences in the composition and the intensity of family and non-family work primarily reflect underlying differences between economic activity and household chores performed *within* the family. And, while there is some evidence suggesting that family poses a lesser obstacle to school attendance, there is no evidence that work within the family is less hazardous than work outside it. It is also worth noting that the technical distinction between family and non-family work is not as clear-cut as it at first seems. Many forms of work common among children fall in a grey area between the family and non-family categories. Consider, for example, production of goods outsourced to the family or work in small business, even if carried out under the supervision of parents or

10

relatives, it is difficult to imagine that they are carried out with modalities substantially different than if the child were working under the supervision of non family members.

3.3 Economic and non-economic productive activity

29. A statistical distinction between work that is economic and non-economic in nature offers an alternative way forward in terms of child labour measurement. This distinction has been used in most estimates of child labour produced by international agencies, governments and individual researchers. For example, ILO includes only economically active children in its global estimates, while UNICEF distinguishes in its published estimates between economically active children and children performing non-economic activities (beyond a set hours threshold). Again, the relevance of such a distinction for measuring child labour rests on the degree to which it reflects underlying differences between economic and non-economic work in terms of their specific nature, intensity and impact. The distinction also rests on the implicit, but consolidated, interpretation of the international and national legislation concerning child labour. The current section looks at how economic and non-economic activity differ in the areas indicated above, in order to provide evidence on the nature and relevance of the distinction between economic and non economic activities for child labour measurement.

30. Household chores are part of the normal activities of family members and hence also of children. Participation to household chores is in fact often seen as beneficial for children's upbringing. However, evidence for various countries indicates that if performed for long hours such activities are detrimental to children education,[6] and especially to the education of girls. This offers a strong rationale (based also on the UN Convention on the Rights of the Child, see next section) to also include statistical standard of child labour the group of children performing household chores to an extent that is damaging for their education. Of course, household chores that are harmful to children's health should also be included, but unfortunately we have at present too little information to go beyond this general statement.
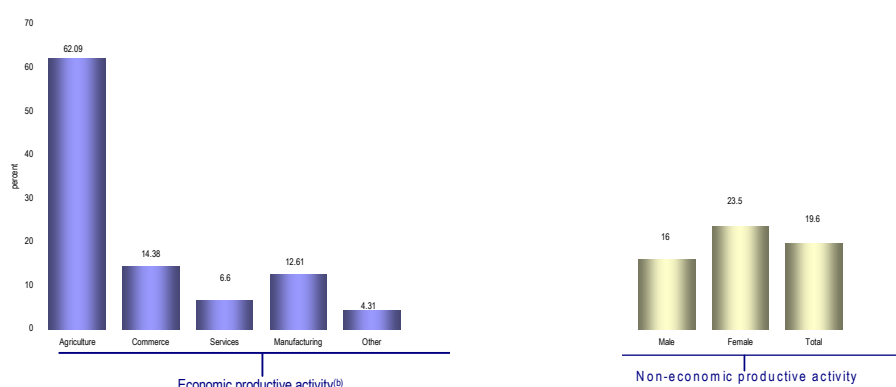
31. The technical distinction between economic and non-economic activities was described in detail in Box 2. Economic activities involve the production of goods and services for sale on the market and the production of goods for own consumption, and can be located either inside or outside the family. Non-economic activities refer to the production of *services* for own consumption, and comprise primarily household chores performed one's own household.[7] Figure 8 illustrates the composition of children's economic activity in Bangladesh. Agriculture constitutes by far the most important form of economic activity, followed by commerce and manufacturing. Unfortunately, the data do not allow us to break down non-economic activities by activity type. Data do indicate that the performance on non-economic activity is very common, especially among girls.

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[6] - For a detailed discussion refer to UCW (2005) http://www.ucw-project.org/pdf/publications/noneconomicactivities2.pdf

[7] The terms "household chores" and "non-economic activity" are used interchangeably in the remainder of this study.

Figure 8. **Main types of economic and non-economic productive activities performed by children**

Notes: (a) Estimates refer to the age group 10-15 years; data for the performance of non-economic activity were not available for children aged less than 10 years; (b) Categories are distinct.
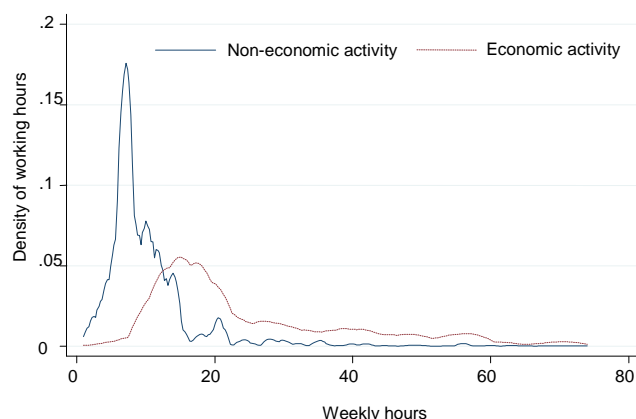
Source: UCW calculations based on *Bangladesh SIMPOC survey 2002-2003*

32. One grey area in terms of the distinction of between economic and non-economic activity lies is in the categorisation of water fetching, fuelwood collection and other similar activities. These activities constitute production of goods for own household consumption and technically fall within the SNA production boundary (see Box 2), meaning that they are technically economic rather non-economic in nature. But the dividing line between economic and non-economic in cases such as this is thin. Water supply and fuel wood collection are rarely reflected in published estimates of child economic activity and are typically excluded from mention in national child labour legislation. Data on own-account production are not available for Bangladesh, but water and fuelwood collection are not considered to be important children's activities in the Bangladeshi context.

33. The level of work intensity, again an important indirect measure of work impact, is very different for economic and non-economic activities in Bangladesh. Children performing economic activities put in an average of 25 hours per week on these activities, while children involved in non-economic activities put in an average of only about ten hours. As shown in Figure 9, the largest cluster of non-economic work is around nine weekly hours, while the largest cluster of economic activity is around 18 weekly hours. The differences in work intensity are even starker when comparing children performing only economic activity, those performing only non-economic activity and those performing both.[8] The first group works an average of 25 hours per week and the second only an average of nine weekly hours (Table 5). The third group, i.e., those combining both work activities, logs an average of almost 25 weekly hours.

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[8] It should again be kept in mind that there are two ways of expressing work intensity. The first reflects differences in hours spent in the two work categories, not differences in the working hours of individual children, many of whom work in both economic and non-economic activity. Second looks at the working hours of children in the three mutually-exclusive categories – those performing economic activity only, those performing household chores only and those performing both.

Figure 9. **Distribution of weekly hours of economic and non-economic activity**

Source : UCW calculation based on *Bangladesh SIMPOC survey 2002-2003*

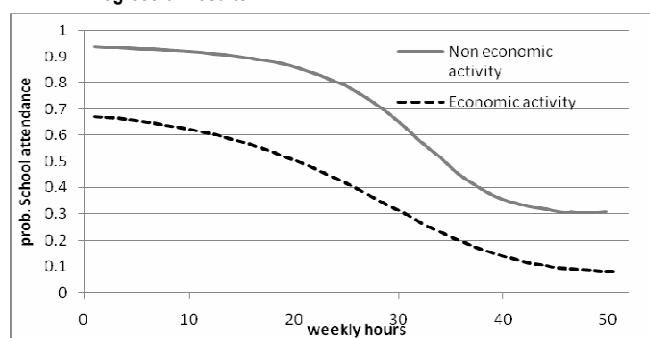*Table 5.* **Average weekly working hours by work category, age and sex**

Child age in years	Children working only in economic activity			Children only in non-economic activity			Children working in both economic and non-economic activity		
	Male	female	Total	male	female	Total	male	female	Total
7	30.4	22.8	26.9	6.7	7.0	6.9	20.4	7.7	14.1
8	27.0	24.7	26.3	8.6	9.0	8.9	17.7	13.3	15.7
9	26.8	22.5	25.6	8.5	9.1	8.8	28.6	27.2	27.8
10	29.2	19.7	27.7	8.8	9.3	9.1	22.3	19.5	21.1
11	29.2	21.6	27.2	9.6	8.9	9.2	23.5	20.6	22.6
12	23.4	17.0	21.8	9.3	9.4	9.4	26.4	27.2	26.6
13	25.4	19.4	23.7	11.0	12.3	11.8	30.9	21.6	27.0
14	30.8	24.1	28.9	10.6	11.7	11.3	26.2	22.8	25.0
Total	26.8	20.4	25.1	9.2	9.8	9.5	26.0	22.4	24.7

Source: UCW calculations based on *Bangladesh SIMPOC survey 2002-2003*

34. Of most relevance for the purpose of child labour measurement is again the question of whether there are differences between economic and non-economic work in terms of their impact on children's education outcomes. Establishing a strict *causal* relationship between work and school attendance is not possible because of the absence of panel or retrospective data for Bangladesh, as discussed above. Empirical evidence based on kernel regressions is shown in 0.[9] Regression results indicate that in the case of children performing only non-economic activity, there is apparently no link with school attendance below about 15 hours per week. Above this threshold, longer working time is associated with reduced school attendance of about 10 percentage point for children working up to about 25 hours and 20 percentage point for children working up to 30 hours per week. Similar results are obtained for children working only in economic activities: a strong negative association with school attendance at low levels of working time is observed, showing a decrease in school attendance of about 30 percent for children working on average 25 hours per week.

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[9] It should be recalled that kernel regressions can be used as a synthetic tool to examine the probabilistic link between work and school attendance, but cannot be used to derive strict causal relationships. Kernel regression results must therefore be interpreted with care.

Figure 10. **Probability of school attendance by hours in non-economic activity and economic activity only, kernel regression results**

Source : UCW calculations based on *Bangladesh SIMPOC survey 2002-2003*

35. But isolating the impact of economic activity on school attendance is complicated by the fact that most economically-active children also perform household chores (although the latter activities account for only a small part of their total work time). This means that it is important to look at the composition of work for the group of children combining economic and non-economic activity. Unfortunately, the data on Bangladesh do not allow us to distinguish for how many hours a child is involved in economic and non economic work for this group of children.

36. What can be concluded from the preceding discussion concerning the relevance of a measurement approach based on the distinction between economic and non-economic activity? The limited available empirical evidence relating to work composition, intensity and impact offer a number of grounds for proceeding on the basis of this distinction. Economic and non-economic activities vary considerably in terms of the actual work tasks they entail for children. They also differ dramatically in terms of the time burden they place on children – children spend on average over twice as much time in economic activity than in household chores each week. Empirical evidence on impact, though limited, also points to important differences between the two types of work. There is also an important non-empirical motive for drawing this distinction – household chores are perceived more as a normal and even beneficial part of childhood in most cultural contexts.

4. MEASURING CHILD LABOUR

37. Three international conventions are of particular relevance as a guide to the statistical measurement of child labour: ILO convention No. 138, ILO Convention No. 182 and the United Nations Convention on the Rights of the Child (CRC) (see Box 1). In what follows, we try to clarify how these international conventions can help defining statistical criteria for the measurement of child labour for three separate age groups: 5-11 year-olds; 12-14 year-olds; and 15-17 year-olds. It is important to note that Bangladesh has not ratified C138 Minimum Age and has not established a uniform minimum age for admission to work. The age groups used here do not therefore reflect national legislation, and were instead selected for the sake of comparison with other countries.[10] Bangladesh has, however, ratified CRC and C182.

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[10] National legislation sets forth several minimum ages for employment. 15 years for occupations connected with transport of passengers, goods or mail by train, or handling of goods within the limits of any port [Section 3 of the Employment of Children Act]; 12 years for tea plantations [Section 23 of the Tea Plantations Labour Ordinance]; 15 years for mines [Section 26 of the Mines Act]; 14 years for factories [Section 76 of the Factories Rules]; 12 years for shops and commercial establishments [Section 22 of the Shops and Establishments Act]; 18 years for road transport services [Section 3 of the Road Transport Workers Ordinance].

38. The identification of the most appropriate statistical definition of child labour (within the legal framework set by the international conventions) must balance two needs. On the one hand, to use too a broad definition might define too wide a target group for intervention, from both a political and a social point of view. On the other hand, too narrow a definition might contradict the Government objectives in terms of development strategy. Accumulation of human capital, a healthy and productive work force, promoting gender balance, etc. are all objectives whose achievements could be hampered by too narrow a definition. Sound statistical advice linked to country development strategy will help guiding the selection of the most relevant statistical definition of child labour.

4.1 Measuring child labour among children aged 7-11 years[11]

39. ILO Convention No. 138 (C138) is a good starting point for a discussion on the quantification of child labour across countries. C138 calls on State Parties to set a minimum age for admission to "work or employment"; it does not rule out *a priori* any specific form of productive activity from consideration.

40. How could child labour be measured in accordance with C138 for children under the absolute minimum working age of 12 years (for less developed countries)? The most obvious answer would be to simply include all children spending non-negligible amounts of time each week in any form of productive activity.[12] But such a broad definition would lead to the inclusion of forms of work that are not damaging to children and that could even be beneficial to them. This would in turn translate into an estimate of child labour that would not constitute a relevant policy target (see Table 6). In measuring child labour, decisions are therefore first needed concerning the work categories that should fall within the minimum age rules contained in C138. (It should be again recalled that *legal* decisions in this regard rest largely with Member States within the parameters set out in C138 and are beyond the scope of this paper.)

41. But C138 is not of course the only international labour standard relating to child labour. Two others – ILO Convention No. 182 (C182) and the United Nations Convention on the Rights of the Child (CRC) – are of particular relevance. These standards contain two important additional elements pertinent to measurement. First, in C182, the definition of "worst forms of child labour," includes activities such as child trafficking, child soldiering, commercial sexual exploitation or use in illicit activities that extend beyond the realm of traditional productivity activity captured in C138. But forms of activities such as these present special measurement challenges, and are beyond the scope of the current paper.[13]

42. Second, and of particular significance for measurement, the notion is introduced in CRC of educational harm as a criterion for child labour. Specifically, CRC requires a child to be protected from performing any work that, *inter alia*, is "likely to be hazardous or to interfere with the child's education."[14] These stipulations mean that even if a

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[11]. The upper age limit reflects that absolute minimum working age set out in C138 in less-developed countries. The lower age limit for the estimates is selected because of limited observations for employment of children younger than this.

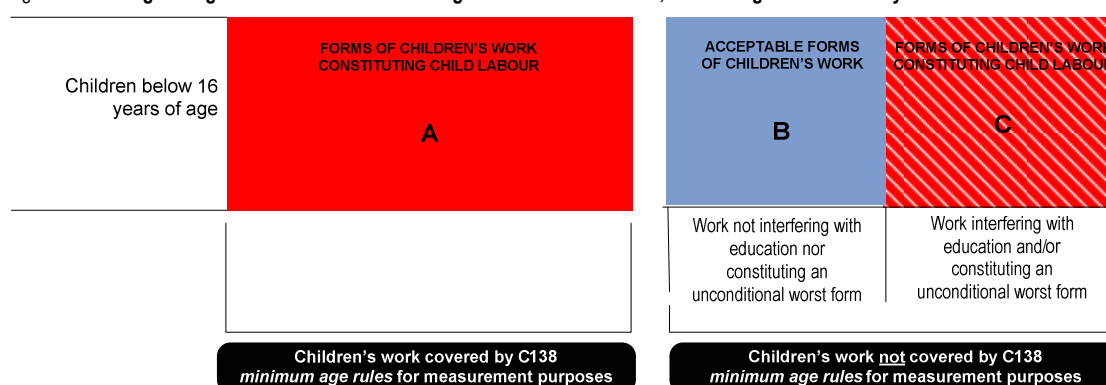[12] Set here at one hour per week, in line with the international definition of adult employment.

[13] The term "unconditional worst forms of child labour" is sometimes used to refer to those listed in Convention No. 182, Article 3(a) to (c), which do not require any further national determination of whether or not to include them in worst forms of child labour. As such, they do not pose a problem of definition but rather one of measurement. This measurement issue is not addressed in the paper.

[14] C182 targets as a worst forms of child labour, *inter alia*, productive activity "which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children" (C182, Art. 3 (d)) It is for each country to determine nationally the exact list of what to by prohibited for under-18 as this so-called "hazardous work". This is also a question of fixing the minimum age of 18 years for hazardous work under C138. The CRC recognizes the right of the child to be protected from performing any work that is "likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development" (CRC, Art. 32.1).

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particular category of children's productive activity were excluded from the minimum age rules of C138, it could still constitute child labour if it were impermissible in accordance with C182 and CRC.

43. In order *not* to be considered child labour for measurement purposes, in other words, children's work must pass a double screening: first it must be excluded from minimum age rules (C138) and second it must not be harmful to education or constitute an unconditional worst from (CRC and C182). Referring to Figure 11, the first screen involves identifying which categories of children's work fall within area A, while the second screen involves identifying other impermissible work from among the work categories activities excluded from area A, i.e. distinguishing area B from area C.

Figure 11. **Distinguishing child labour from other categories of children's work, children aged less than 16 years**

44. The first screen relates directly back to the discussion in the previous sections in terms of which broad categorisations of children's productive activity make most sense for the purposes of child labour measurement. Specifically, the question of whether a statistical distinction should be made between economic/non-economic work, or alternatively between family/non-family work, is essentially a question of which work categories should be measured using the C138 minimum age rules, and which work (or activity) categories should be measured only in the light of the additional elements contained in CRC and C182 (again, the scope of application of *legal* provisions in this regard is a separate discussion).

45. The discussion presented in the previous sections suggest that an approach based on a statistical distinction between economic and non-economic activity is easiest to justify, as underlying this distinction are important differences in terms of the composition, intensity and impact of work. Children's involvement in economic activity is less common than non-economic activity, but this work is performed more intensely, arguing for its inclusion under C138 minimum age rules for measurement purposes. Child involvement in non-economic activity, on the other hand, is much more common, but generally performed much less intensely, arguing for its exclusion from C138 minimum age rules for measurement purposes. Applying the stipulations of CRC, however, would mean that children in this latter group would still be in child labour if this non-economic activity interfered with education (i.e., area C in Figure 11).[15]

46. Another issue that must be considered in measuring child labour is the categorisation of water fetching, fuelwood collection and other own-account production activities. As noted in Section 3 (see Box 2), while these activities are technically economic in nature, they are categorised as non-economic activities in most household surveys and in most published estimates of child involvement in economic activity. The implications of the

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[15] Or in the unlikely event it constituted an unconditional worst form, as set out in C182.

categorisation of own-account production for child labour measurement are clear: following from the above discussion, including them as an economic activity for measurement purposes means also including them within C138 minimum age rules (i.e., under area A in Figure 11), which in turn means a higher overall number of children in child labour. Unfortunately, data on water fetching and other own-account production are not available in Bangladesh, meaning that their impact on child labour measurement cannot be explored further. Feedback from Government counterparts suggest that these activities do not constitute major uses of children's time Bangladesh, but it might nonetheless be worthwhile to address this data gap in the design of future child labour surveys.

47. Following the approach set out above, identifying the main components of the child labour population among children aged less than 12 years is a relatively straightforward exercise. For the purposes of measurement, child labourers would comprise *all* children in economic activity (area A in Figure 11) in addition to children performing non-economic activity that interferes with their education (area C in Figure 11).[16]

48. The main measurement challenge arising from this approach lies in identifying non-economic activity harmful to education (i.e., distinguishing areas B and C in Figure 11). Empirical evidence suggests that it is the intensity rather than the nature of household chores that is the main determinant of their impact, though this is an area requiring further investigation. Hours thresholds rather than specific work type can therefore be employed to distinguish harmful from benign non-economic activity for measurement purposes.

Table 6.   **Estimates of child labour among children aged 7-11 years, by measurement approach**

Gender	(A) Child involvement in economic activity		(B) Child involvement in non-economic activity only, by hours thresholds[a]								(A)+(B) Child labour (by hours threshold considered for non-economic activity)							
	No.	%	≥ 7 hrs		≥ 14 hrs		≥ 21 hrs		≥ 28 hrs		≥ 7 hrs		≥ 14 hrs		≥ 21 hrs		≥ 28 hrs	
			No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Male	545,012	6.2	848,746	9.7	142,842	1.6	40,739	0.5	22,510	0.3	1,393,758	15.9	687,854	7.9	585,751	6.7	567,522	6.5
Female	188,691	2.3	1,127,412	13.8	228,100	2.8	70,724	0.9	28,537	0.3	1,316,103	16.1	416,791	5.1	259,415	3.2	217,228	2.7
Total	733,703	4.3	1,976,159	11.7	370,942	2.2	111,463	0.7	51,046	0.3	2,709,862	16.0	1,104,645	6.5	845,166	5.0	784,749	4.6

Notes: (a) Only children performing non-economic activity exclusive of economic activity are considered, as those also performing economic activity are already captured under column (A)

Source: UCW calculations based on *Bangladesh SIMPOC, 2002-2003*

49. Estimates of child labour for the 7-11 years age group following this approach are presented in Table 6. The first column reports the percentage of children involved in economic activity, while column B reports the percentage of children involved in non-economic activity exclusively by different hours thresholds. The results highlight the importance of the hours threshold selected for non-economic activity. Estimated involvement in non-economic activity decreases from 12 percent at the seven hours threshold to less than one percent at the 21 hours threshold. The third column presents estimates of child labour considering different hours thresholds for non-economic activity. The child labour estimates vary greatly by time thresholds for non-economic activity, from 16 percent (7-hour threshold) to five percent (28-hour threshold).

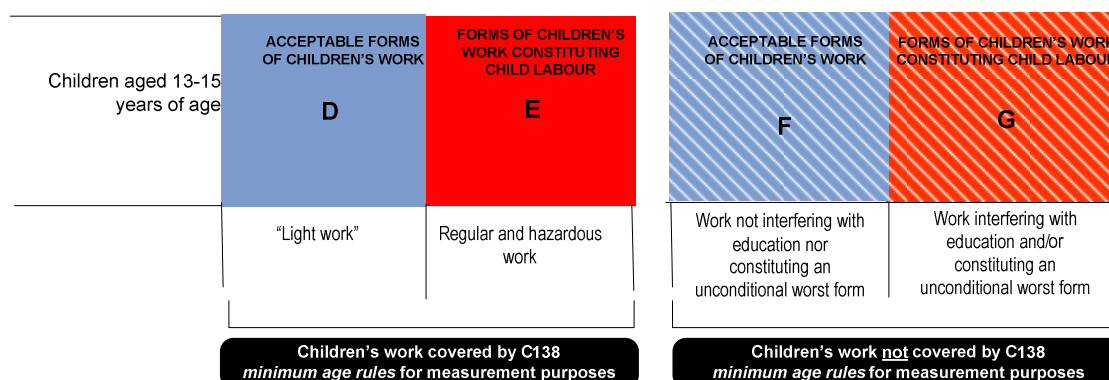## 4.2   Measuring child labour among 12-14 year-olds (identifying "light work")

50. C138 stipulates that national laws may permit the employment or work of children aged 12-14 years of age (in less developed countries) on "light" which is (a) not likely to be harmful to their health or development; and (b) not such as to prejudice their attendance at school …or their capacity to benefit from the instruction received" (Art. 7).

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[16] Area H, unconditional worst forms, will be discussed separately below.

Although there are no stipulations relating to light work in Bangladesh law,[17] light work is relevant to the broader global discussion on child labour measurement and therefore is discussed briefly here.

51. Applying this additional C138 stipulation on light work, and following from the discussion above, the main components of the 12-14 year-old child labour population for global measurement purposes would become all children in "non-light" economic activity (area E in Figure 12) in addition to children performing non-economic activity that interferes with their education (area G in Figure 12).

Figure 12. **Distinguishing child labour from other categories of children's work, children aged 13-15 years**

52. Measuring child labour among 12-14 year-olds for global comparative purposes therefore firstly requires drawing a statistical distinction between "light" and "non-light" economic activity, i.e., distinguishing between areas D and E in Figure 11. The educational impact of work will be used here as the main criterion for distinguishing light work. But even with this simplification, there are different possible ways forward. The most straightforward approach could be to define the group in non-light work as all children in economic activity *not* attending school, based on the implicit assumption that it is work that is interfering with their school attendance. This approach would yield a non-light work estimate of only three percent (Table 7, column A).

53. But the C138 definition of light work also excludes work that interferes with children's ability to benefit from classroom instruction, suggesting that the economic activity performed by children attending school should not be overlooked altogether from consideration as non-light work. It is reasonable therefore to also consider working students performing work at a level of intensity likely to interfere with their school performance. Including students working beyond a threshold of 14 hours per week (see discussion below) would raise the proportion of 12-14 year-olds in non-light work to 27 percent (Table 7, column C).[18]

Table 7. **Estimates of child labour calculated on the basis of school attendance status and work intensity of working students, by gender**

Sex	(A) Children aged 12-14 years involved in economic activity and not in school		(B) Working students aged 12-14 years who are working for at least 14 hours per week		(C)=(A)+(B) Children aged 12-14 years in non-light work	
	No.	%	No.	%	No.	%
Male	1,125,225	21.7	828,641	16.0	1,953,866	37.7
Female	479,208	10.1	244,752	5.1	723,960	15.2
Total	1,604,433	16.1	1,073,394	10.8	2,677,827	26.9

Source: UCW calculations based on *Bangladesh SIMPOC survey 2002-2003*

[17] No explicit provision limits the engagement of children to light work only, but Bangladeshi legislation provides for specific conditions, such as limits to working hours and the prohibition of night work.

[18] Unfortunately there is little empirical evidence in Bangladesh on work intensity and school achievement to guide identification of a specific hours threshold. This is an area where further research is required.

54. It could be argued that the approach discussed above is too expansive in classifying all non-student working children as child labourers, as clearly not all are out of school *because* of work. An alternative approach to measuring non-light economic activity among 12-14 year-olds would be to simply distinguish light from non-light economic activity on the basis of hours thresholds applied to all working children, regardless of their school attendance status. There are some empirical grounds for this approach in that research shows that work intensity affects both school attendance and performance, two of the key criteria for light work set out in C138.

55. At what level then could a threshold for light work be set? ILO/IPEC employed a weekly time threshold for light work of 14 hours in its global child labour estimates, citing another ILO convention, No. 33 (Minimum Age, Non-Industrial Employment).[19] In terms of at least school attendance, such a threshold would be "safe" in the context of Bangladesh, as data show that the attendance of children working for less than this amount of time differs little from that of children not working in economic activity at all. The proportion of 12-14 year-olds in child labour based on a general threshold of 14 hours would be around 26 percent (Table 8).

Table 8. **Estimates of child labour for the 12-14 years age group based on a general threshold of 14 hours per week, by gender**

	Children aged 12-14 years in economic activity > 14 hrs per week	
	No.	%
Male	1,912,477	36.9
Female	695,999	14.6
Total	2,608,476	26.2

Source: UCW calculations based on *Bangladesh SIMPOC survey 2002-2003*

56. The other component of the 12-14 year old child labour population would consist of children in *non*-economic activity that interferes with schooling (i.e., area G in Figure 11). As discussed in the context of the previous sub-section, empirical evidence suggests that only non-economic activity performed very intensively appears to affect school attendance. To the estimates shown in the tables, therefore, one should also add the number of children performing non-economic activity beyond a relatively high hours threshold. We do not discuss such details here, as they can be easily derived once the approach on whether or not, and if so, how to include non-economic activities in child labour estimates has been defined.

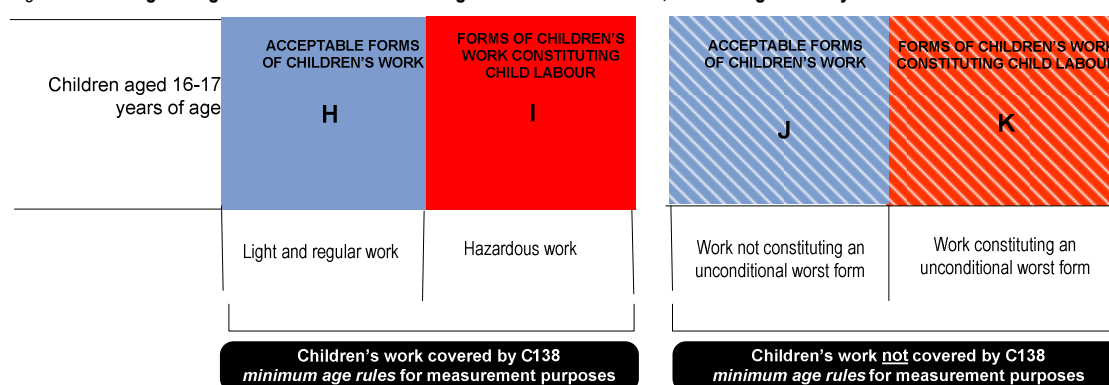## 4.3 Identifying hazardous work (measuring child labour among 15-17 year-olds)

57. Children aged 15-17 years are above the general minimum age for regular work or employment set out in C138. The Convention nonetheless proscribes the involvement of this group in "any type of employment or work which by its nature or the circumstances in which it is carried out is likely to jeopardise the health, safety or morals of young persons." The stipulations contained in C182 and CRC relating to hazardous work, excessively long work hours and unconditional worst forms, also extend to children aged 15-17 years. Bangladeshi legislation does not contain a general prohibition of work

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[19] Article 3.1 of the convention states that "Children over twelve years of age may, outside the hours fixed for school attendance, be employed on light work (a) which is not harmful to their health or normal development; (b) which is not such as to prejudice their attendance at school or their capacity to benefit from the instruction there given; and (c) the duration of which *does not exceed two hours per day on either school days or holidays*, the total number of hours spent at school and on light work in no case to exceed seven per day".

likely to harm the health, safety or morals of children under 18 years, but has ratified C182 (Worst Forms).[20]

58. Identifying child labour for global measurement purposes among this group therefore requires drawing a distinction between "regular" and "hazardous" economic activity, i.e. between areas H and I in Figure 13. Non-economic activity is less pertinent for child labour measurement purposes because 15-17 year-olds are above the minimum schooling leaving age. This means that interference with schooling, the primary criterion for categorising non-economic activity as child labour for measurement purposes (see previous sections), is not relevant. But unconditional worst forms that are non-economic in nature are relevant (i.e., area K in Figure 13); measuring these forms, however, is beyond the scope of the current paper, as discussed earlier.

Figure 13. **Distinguishing child labour from other categories of children's work, children aged 15-17 years**

59. C182, following from C138, states that the types of work likely to harm the "health, safety or morals of children" shall be "determined by national laws or regulations or by the competent authority, after consultation with the organizations of employers and workers concerned, taking into consideration relevant international standards…". The Government reported in 2003 that there is no national list of hazardous forms of work, though it undertook in 2005 a baseline survey for determining worst forms of child labour in a step towards developing a national list.[21] The Government has also undertaken a series of rapid assessments of specific worst forms relevant in the Bangladesh context. These assessments cover, *inter alia*, children in road tran sport, battery replacement/recharging, welding establishments, street children, and automobile establishments.

60. The estimates presented in Table 9 below are based on the ILO/IPEC draft list of hazardous forms used in global child labour estimates, and therefore are indicative only. The table nonetheless suggests that hazardous work among older children is cause for concern. Over 348,000 children aged 15-17 years work in occupations or industries included in ILO/IPEC draft list, while an additional 583,000 children in this age group work excessive hours (i.e. 43 or more hours per week).

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[20] Bangladeshi legislation does not, however, contain a general prohibition of work likely to harm the health, safety or morals of children under 18 years. The applicability of the prohibitions is limited to children up to 16 or 17 years [Section 3 of the Employment of Children Act]; [Section 24 (2) and Section 29 of the Factories Act]; [Section 26 (A) of the Mines Act]; [Section 23 of the Tea Plantations Labour Ordinance]. Some of these provisions require a certificate of fitness instead of prohibiting the work for children. A young person (under 18 years) is prohibited from working on dangerous machines without proper instruction about the dangers and necessary precautions, in addition to sufficient training or supervision [Section 25 of the Factories Act]. A woman or a child (under 16 years) is prohibited from cleaning, lubricating or adjusting any part of a machine while that part is in motion, or to work between moving parts or between fixed and moving parts of any machinery which is in motion [Section 24 (2) of the Factories Act]. The Government of Bangladesh has reported in 2003 that there is no list of the types of work determined to be likely to harm the health, safety or morals of children.

[21]

Table 9. **Involvement in hazardous work as defined by ILO/IPEC draft list, as percentage of all economically active children aged 15-17 years**

	Male		Female		Total	
	%	No.	%	No.	%	No.
Children in hazardous industries[1]	6.3	132,506	2.9	18,225	5.5	150,731
Children in hazardous occupations[2]	9.2	192,312	0.9	5,686	7.2	197,998
Children working excessive hours[3]	25.4	533,861	7.8	49,249	21.3	583,110
Total children in hazardous work	40.9	858679	11.6	73160	34.0	931,839

Notes: **(1)** Hazardous industries in ILO/IPEC draft list are: mining, quarrying and construction. **(2)** Exclusive of children also in hazardous industries. Hazardous occupations in ILO/IPEC draft list are: optical and elect equip operators; health associated professional; nursing midwife; protective services; forestry and related workers; fishery, hunters and trappers; miners, shot fires, stone cutters and carvers; building frame and related workers; building finishers; metal moulders, welders, and related workers; blacksmith, tool makers and related workers; machinery mechanics and fitters; electrical and electronic equip mechanics and fitters; precision workers in metal; potters, glass makers and related workers; mining and mineral processing plant operators; metal processing plant op.; glass, ceramics and related plant op.; wood processing & papermaking plant op.; chemical processing plant op.; power production and related plan operators; metal and mineral machine operators; chemical machine operators; rubber mach. op; wood products mach. op.; textile, fur, leather mach. op.; food mach. op.; assemblers; other mach. op.; motor vehicle driver; agric and other mobile plant op.; ships' deck crew and related workers; street vendors and related workers; shoe cleaning other street services; messengers, porters, doorkeepers, and related workers; garbage collectors and related workers; agric. fishery and related workers; mining and construction labourers; and transport and freight handlers. **(3)** Exclusive of children in hazardous industries and/or in hazardous occupations. Excessive hours defined as ≥43 hours per week.

Source: UCW calculations based on *Bangladesh SIMPOC survey 2002-2003*

61. The issue of hazardous work is not of course only relevant for older children. Indeed, hazardous work represents an even greater threat to younger children and therefore its measurement among children below the general minimum working age is also important.[22] Estimates based on the draft ILO/IPEC list, shown in Table 10, suggest that incidence of hazardous work is commonplace among younger children. Almost 15,000 children aged 5-9 years, 40,000 children aged 10-11 years and 294,000 children aged 12-14 years work in either industries or occupations included in the ILO/IPEC draft list. Working excessive hours is also very common, particularly among 12-14 year-olds.

Table 10. **Involvement in hazardous work as defined by ILO/IPEC draft list, as percentage of all economically active children aged 5-15 years[1]**

	5-9 years		10-11 years		12-14 years	
	%	No.	%	No.	%	No.
Children in hazardous industries[1]	2.5	7,205	2.2	12,317	1.9	74828
Children in hazardous occupations[2]	2.9	8,244	5	28080	5.7	219,426
Children working excessive hours[3]	11.8	33,469	13.2	73,328	8.6	329,191
Total children in hazardous work	17.2	48,918	20	113,725	16	623,445

Notes: **(1)** Hazardous industries in ILO/IPEC draft list are: mining, quarrying and construction. **(2)** Exclusive of children also in hazardous industries. Hazardous occupations in ILO/IPEC draft list are: optical and elect equip operators; health associated professional; nursing midwife; protective services; forestry and related workers; fishery, hunters and trappers; miners, shot fires, stone cutters and carvers; building frame and related workers; building finishers; metal moulders, welders, and related workers; blacksmith, tool makers and related workers; machinery mechanics and fitters; electrical and electronic equip mechanics and fitters; precision workers in metal; potters, glass makers and related workers; mining and mineral processing plant operators; metal processing plant op.; glass, ceramics and related plant op.; wood processing & papermaking plant op.; chemical processing plant op.; power production and related plan operators; metal and mineral machine operators; chemical machine operators; rubber mach. op; wood products mach. op.; textile, fur, leather mach. op.; food mach. op.; assemblers; other mach. op.; motor vehicle driver; agric and other mobile plant op.; ships' deck crew and related workers; street vendors and related workers; shoe cleaning other street services; messengers, porters, doorkeepers, and related workers; garbage collectors and related workers; agric. fishery and related workers; mining and construction labourers; and transport and freight handlers. **(3)** Exclusive of children in hazardous industries and/or in hazardous occupations. Excessive hours defined as ≥43 hours per week.

Source: UCW calculations based on *Bangladesh SIMPOC survey 2002-2003*

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[22] ILO Convention No. 182 calls on each Member state to take immediate and effective measures to secure the prohibition and elimination of the worst forms of child labour as a matter of urgency.

5. CONCLUSION

62. The preceding sections have examined a number of key questions surrounding development of a statistical standard for child labour, drawing on empirical evidence from Bangladesh. Five questions were of particular importance in this context; these questions and major conclusions relating to each summarised briefly below.

(i)   Should family and non-family work be treated differently in child labour measurement? While it is intuitively appealing to assume that working with parents or relatives is less "damaging" than working outside the family, the empirical evidence concerning work composition, intensity and impact did not, on balance, indicate the family/non-family distinction is relevant for the purposes of child labour measurement in the Bangladeshi context. The differences in the composition and the intensity of family and non-family work primarily reflected underlying differences between economic activity and household chores performed *within* the family. And, while there was some evidence suggesting that family work posed a lesser obstacle to school attendance, there was no evidence that work within the family was less hazardous than work outside it.

But feedback from national counterparts on this point favoured excluding children combining school attendance with helping on family farms and enterprises from consideration as child labourers. It was argued that it is common in Bangladesh for children in rural areas to help in family farms for a few hours after school, and likewise in family enterprises in urban areas, and that these work activities should not be construed as child labour.

(ii) *How should non-economic activity (i.e., household chores) be treated in child labour measurement?* The empirical evidence suggested that a distinction between economic and non-economic activity for the purposes child labour measurement is relevant, as underlying this distinction are important differences in terms of the composition, intensity and impact of work. Children's involvement in economic activity is less common than non-economic activity in Bangladesh, but this work is performed more intensely and with greater apparent consequences for children's health and safety. Child involvement in non-economic activity, on the other hand, is more common in the country, but is generally performed less intensely and with fewer apparent adverse effects. The empirical evidence did indicate the household chores interfere with schooling when performed intensively, which, applying the stipulations of CRC, would argue for their inclusion in child labour measurement beyond a relatively high weekly hours threshold.

Feedback from national counterparts was generally *not* in favour of considering non-economic activity in the measurement of child labour.

(iii) *How should water collection (and other own-account production of goods) be classified for the purpose of child labour measurement*? Data on water and fuelwood fetching and other own-account production are not available in Bangladesh, meaning that their impact on child labour measurement could not be looked in detail. Feedback from counterparts, however, suggested that these activities do not constitute major uses of children's time Bangladesh.

(iv) *How should light work be measured?* The empirical evidence was insufficient to draw detailed conclusions concerning the health and educational consequences of different types of children's work. In the absence of this information it was necessary to explore other more general criteria for distinguishing light work from other forms of work. One approach looked at was to define the group in non-light work as all

22

children in economic activity *not* attending school, based on the implicit assumption that it is work that is interfering with their school attendance. Another approach was to include out of school children *plus* working students performing work at a level of intensity likely to interfere with their school performance. A third approach was to simply distinguish light from non-light economic activity on the basis of hours thresholds applied to all working children, regardless of their school attendance status. Simulated estimates based on each of these approaches yielded very different estimates of 12-14 year-olds in light work, underscoring the need for a consensus in how light work should be measured.

(v) *How should hazardous work be measured?* Data limitations and the absence of a national list mean that the number of 15-17 year-olds in hazardous work cannot be adequately measured in Bangladesh. Development of a national list, and subsequently of a survey instrument tailored to quantifying children's involvement in the forms of work included in the list, are therefore important priorities in Bangladesh. Development of a standard statistical measure of hazardous work that can be applied globally is also complicated by the fact that international child labour norms allow countries considerable flexibility in terms of which forms of work are classified as hazardous. This issue, however, was beyond the scope of the current paper.