

DEVELOPMENT OF INDICATORS ON CHILD LABOR

*A Report to
the International Program on the Elimination of Child Labor
at the International Labor Organization*



Robert T. Jensen, Ph.D.
79 JFK St.
Cambridge, MA 02138
U.S.A.

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PREFACE

This work was undertaken as part of an ILO external collaboration contract completed in June 2000. The primary purpose of the contract was to develop key indicators of child labor. The basis of this report stems from analysis of the substantial body of work conducted by ILO/IPEC, a review of relevant survey documents, and a substantial literature review.

In producing this report, I have had useful conversations with Kebebew Ashagrie, Eduardo Araujo, Arjen Kool, Angela Martins-Oliveira and George Okutho. I would also like to thank Gabrielle Stebbins for research assistance in writing this report.

All statements expressed in this document are the author's, and imply neither acceptance of nor responsibility for them by the ILO, nor the individuals named above.

Robert Jensen
Cambridge, MA
June 2000

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Chapter 1. Introduction and Overview

While hardly a new phenomenon, the issue of child labor has attracted increasing attention in the past decade from policy makers, advocates and researchers. Child labor is a persistent problem, found throughout much of the developing world, and to a lesser extent in developed countries. While there have been numerous in-depth case studies, and attempts to estimate the total number of child laborers, we still have very little understanding of why there is child labor, or what can be done to successfully eliminate it. There is much conjecture, largely based on anecdotes and impressions, but little rigorous analysis or objective facts.

There are also conflicting accounts, reports and theory. Part of this is no doubt due to the diverse nature of child labor, which varies over time and from place to place. But some of the problem is surely also due to the lack of a consistent, coherent framework for description and analysis, and a lack of quantitative data. Understanding child labor, developing policy and monitoring progress all require in-depth empirical knowledge and careful analysis. The availability of detailed and reliable child labor statistics and their analysis on a continuing basis are particularly important for establishing policy priorities and targets, formulating and implementing interventions, and monitoring policies, regulations and programs aimed not only at the minimization of the negative consequences of child labor in the short term, but most importantly at the eventual elimination of the practice. The goal of this report is to suggest how data can be used to describe and analyze, and suggest a research agenda from which to learn about child labor, its patterns, causes and consequences.

ILO/IPEC has for many years been active in efforts to increase public awareness and encourage actions for the elimination of child labor. In 1993 the ILO/IPEC, in close collaboration with the respective national statistical institutions, carried out experimental surveys in four countries: Ghana, India, Indonesia, and Senegal (see Ashagrie 1996). As part of these continuing efforts, and in recognition of the fundamental need for quantitative data, the Statistical Information and Monitoring Programme on Child Labor (SIMPOC) was created in 1998 to help member countries generate qualitative and quantitative data on child labor. A standardized survey methodology was developed for adoption by member countries, in order that there be comparability over time and across countries. Based on the originally designed survey instrument, surveys in 11 countries have been conducted, with plans for an additional 40. A further plan is to establish a centralized database on child labor at ILO HQ to which new information from the SIMPOC studies and other sources would regularly be added and updated. Such a database could then serve as a valuable instrument for establishing the current situation of child labor, and assist in advocacy, designing policy and interventions, and monitoring the impact of any such intervention programs, national and international laws and conventions.

However, data are of little value unless they are used for careful and rigorous description and analysis, guided by a coherent theoretical framework. An essential part of this work involves

developing a set of key indicators that would measure the incidence and magnitude of child labor, its characteristics, causes and consequences. This report was undertaken towards these specific goals. This report, as dictated by the Terms of Reference (TOR), is largely focused around SIMPOC's data collection efforts and how to best make use of them. In particular, the TOR for this project were,

- 1) Assess existing variables collected through the SIMPOC survey instrument to determine those that can act on their own as indicators and those that are not in themselves (unless in combination with others) indicators. (Chapter 3)
- 2) Through work done on child labor and other related subjects, for example the Key Indicators of Labor Market (KILM), M/S Field Research Report, and UNESCO Education for All Indicators, identify other socio-economic, cultural, and political variables (not covered by the SIMPOC survey instruments) that may be useful in understanding the problem of child labor, indicating the kind of influence each one has. These variables should include both quantitative and qualitative measures. (chapters 3 and 4)
- 3) On the basis of above tasks, propose and develop indicators of child labor that can serve to describe the present child labor situation; and for programme monitoring and policy development. This will entail defining each indicator in terms of purpose and what it measures; calculation method and data requirements; interpretation; and quality standard (reliability of each indicator). (Chapter 4)
- 4) Preparing a strategic outline for using and producing these quantitative and qualitative indicators of child labor for the purposes of assessing the child labor situation at national level, thereby identifying the different forms of the practice; designing, implementation and monitoring policies and intervention programmes on child labor; and sensitising the public in general and, in particular, the stakeholders concerning child labor issues and problems, as well as for the campaign against the phenomenon. (Chapters 5 and 6)
- 5) Suggest methods and strategy for analytical work and modifications (to the extent practical) to the SIMPOC data collection instruments. (Chapters 5, 6 and 7)

The report proceeds along the following lines. In chapter 2, we present a brief theoretical framework for child labor. Much of the intellectual progress in the social sciences has come from developing and testing theories of behavior. Before we can evaluate survey instruments or suggest indicators or research that needs to be done, we need to have a coherent framework for

organizing information and ideas about child labor. We therefore present an overview of the various factors that are thought to affect child labor.

Chapter 3 provides an assessment of the SIMPOC survey questionnaire. Before we can suggest indicators of child labor and potential uses of these data, we must begin with a careful assessment of what these data contain. We discuss the value and rationale of each question in the survey and how they fit together within the larger framework and needs. In the process, we also discuss potential additions to the SIMPOC questionnaire which could provide useful additional information relevant to understanding child labor.

Chapter 4 then presents the indicators of child labor which can be derived from the existing survey questionnaire. We begin by focusing on a discussion of important conceptual issues in measurement, and then present a series of indicators that provide measurements of incidence and magnitude, including differentiation by various elements that are relevant to the severity of child labor. We also provide contextual variables, both qualitative and quantitative, external to the household that are equally relevant to the understanding of child labor.

Chapter 5 discusses the value or potential use of these indicators for four main objectives: articulating policy objectives, choosing policy instruments and program interventions, program targeting, and impact assessment. In this chapter and chapter 7, we address more generally “what is needed” to accomplish these goals, and then assess “what we have,” from the SIMPOC surveys and how we can best make use of it.

Chapter 6 focuses on research outputs, country profiles and other possible uses and presentation of the various child labor indicators. Chapter 7 returns to the themes of what information needs are greatest in attempting to bridge the gap between the ‘what we have’ and ‘what we need’ for understanding child labor. We build on the need for policy design and the need to understand the causes and pathology of child labor (as developed by the discussion in Chapter 2) and suggests modifications to the survey instrument to make it more valuable for the advocacy, research and policy objectives. We also suggest research and methodologies beyond (and as supplements to) what is contained in the current approach in order to understand child labor. We focus on some of the most critical information needs in the analysis of child labor, including research on the worst forms of child labor, research and data collection efforts oriented towards the demand for child labor at the firm level, data on trends over time, and the evaluation of programs. We suggest methods which could be applied to address each of these issues in future work.

Chapter 2. Factors Affecting Child Labor

It is useful to begin with a framework regarding factors that affect child labor. There is of course no one lone cause of child labor, nor can any single model adequately explain so complex a phenomenon. However, it is worth discussing in some detail the underlying theories behind why various factors are thought to affect child labor. Such an exploration makes it possible to coherently organize disparate observed facts and patterns, assertions, observations and questions about child labor and schooling. It also allows for predictions of the impacts of various factors on child labor, and suggests empirical tests to try to uncover some of the 'causes' of child labor. Many people tend to cite statistics or correlations about child labor (for example, X% of working children come from female headed households, etc.), whereas without a theoretical framework, it's hard to understand what those results suggest or imply. A theoretical framework also leads to indicators, research and the design of policy.

At the most basic level, households make decisions regarding how children's time will be allocated between leisure, schooling, household activities (chores and activities related to household economic activity) and employment. However, the key is to not consider the household in isolation, but to realize that decisions are made within a context, and are influenced by factors external to the household. Thus, beyond the household, we also discuss the schooling environment, the demand for child labor, the legal and cultural context, and international factors. The ultimate determinants of child labor are a complex interaction among various factors acting at different levels. It is only by taking a 'holistic' view that the phenomenon can be understood. The objective is to arrive at a view of child labor as the outcome of a variety of factors influencing households' ability and willingness to send children to school or to work. However, our intention below is not to provide an exhaustive list of all factors that affect child labor, but rather to highlight key elements that are relevant for the development of indicators and design of policy.

Some Factors Affecting Child Labor

I. Household Level (Internal Factors)

1. Income and Wealth
2. Income Volatility
3. Debt
4. Family Size and Fertility
5. Family Structure and Migration
6. Parental Perceptions, Attitudes and Aspirations

II. Factors External to the Household (Contextual Factors)

1. Schools
Access, Relevance, Quality, Cost
2. Production and the Demand for Labor
3. Social, Economic and Contextual Factors

I. Factors at the Household Level

There are a number of factors at the household level that affect whether a child is sent to work, around the household or away from the household. They all arise from an economic model of the household, which involves decisions regarding time allocation and investment in children (see box on next page). At its core, the model says that the household has various members whose time is divided among various tasks. Sending children to school is an investment that incurs costs in the present and yields benefits in the future. Any factors that affect either the desire or ability to invest in children's education will affect school enrollment and child labor.

Household Factor 1.	Income and wealth
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Most researchers, advocates and activists claim that poverty is the main cause of child labor. In other words, if households don't have enough money to meet basic needs, children may be sent to work to earn additional money. In addition, low income implies an inability to be able to afford to send a child to school. School is not free in most countries, and the costs of attending school can be quite large.

However, note that along with the explanation of low-income, it must also be the case that there are no credit markets for borrowing money. If education yielded very high returns in the form of higher future earnings for the child, and there were a way to enforce loan contracts, in principle households could borrow money to finance current consumption and costs of education, which could then be repaid out of future earnings of the child. In most wealthy countries, this form of financing is used for higher education. Individuals realize that education is a worthwhile investment with high returns, and since they may not be able to afford to pay for higher education directly, they borrow against their future earnings in the form of student loans in order to finance the investment. Of course, markets for such loans rarely exist in low-income countries. But for the poverty explanation to hold, the condition of absent capital markets must also exist. In wealthy nations, there is no doubt that lack of access to credit, or the ability to borrow to finance education, is a factor that limits people's educational decisions. Educational loans to students are a big part of overcoming this barrier.

The general lack of access to credit is relevant for low-income countries in the same exact way. If households do not have enough cash on hand to send their children to school, but education is viewed as worthwhile, often one child may be sent to work in order to help finance the education of their siblings (Jensen 1999). This is evidence that lack of access to funds impedes the educational attainment of children and also affects the likelihood of child labor. These results are also taken as evidence that parents do value education and even in the face of low incomes often seek strategies that will enable at least some of their children to attend school.

A BRIEF CONCEPTUAL FRAMEWORK

We discuss a basic economic theory of the household decision regarding schooling, labor, and the allocation of time, due to Gary Becker. While the model is an abstraction, it does provide what is generally agreed upon as a useful framework for thinking about education and investments in children, and fares well in empirical tests.

Households consist of several members, each of whom has a fixed amount of time available in a given day. Time can be allocated to several tasks, including work (outside the household or as self-employment), household production (child care, cooking, cleaning, etc.), leisure, and (for children) schooling. Households are assumed to derive happiness from the consumption of market-produced goods and services (which can be purchased with labor earnings), household produced goods and services (which can be 'purchased' by using members' time), and leisure (they prefer leisure to work).

Parents invest in children because there are returns to such investments. The returns are both monetary and non-monetary, including higher earnings for the child in the future (with which they might support the parents in old age), but also benefits in the form of learning, development of cognitive and creative skills, socialization, etc. There are also costs involved in education, including both direct cash outlays (enrollment fees and tuition, books and supplies, uniforms, transportation) as well as the 'opportunity cost,' or the recognition that one cost of sending a child to school is that you give up the money they could have earned if they were working (and thus goods and services you could have purchased with that money), or what they could have produced around the household.

The household choice is then how much of each member's time to allocate to each activity, including how much education to invest in children. Typically, households are thought to want as much of the various goods as they can obtain. However, households also face constraints, namely that the time endowment of each individual is fixed (they can't have 8 hours of school a day and work 12 hours and have 12 hours of leisure), and that a household can only purchase as much of the market good as they earn in the labor market by working. The desire for more of all goods (market and home-produced) and the constraints on time and ability to obtain these different goods create tradeoffs, as more time in any task means less time in another. Thus the tradeoff between work and leisure is that while we prefer leisure over work, the cost of leisure is that we will have less income to purchase goods, and less time to produce goods within the home. Note that schooling is viewed as an investment in this framework, with costs now and benefits in the future. The tradeoff is the amount of consumption and benefits one must forgo now (because child does not work, and costs must be incurred to send the child to school) compared to the additional benefits derived from having more education later (including greater future consumption). Child labor, child work around the household, and schooling thus all are determined by the tradeoffs between the allocation of household members' allocations of time to different activities and the competing desires for the future benefits of education (greater income, etc.) and current consumption desires (or needs). Any factors that affect the benefits or costs of education or the constraints faced by the household will affect the amount of schooling the child receives and may also affect the amount of time the child spends working. Child labor is an activity that yields immediate benefits (in the form of additional consumption made available by the income earned), but of course also has costs, namely time spent working outside the home is less time spent working around the home and less time for schooling and leisure. Factors that affect the benefits of work (such as the prevailing child wage rate) or the costs (such as the returns to education) will affect the decision regarding child labor. Note however, that variables that affect the benefits and costs of schooling may not directly affect the benefits or costs of child labor, and vice-versa. While the two are intertwined in the sense that children have limited amount of time available and more time in one activity means less time in others, factors that affect one may not affect the other. Note also that child labor and schooling need not come into conflict, depending on the amount of time need for work or schooling, or time spent in other activities (production around the household or leisure). It is in this framework that we can think about the impacts of several key variables on education and child labor. !

Household Factor 2.	Income Volatility
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Typically in most low-income countries, households face incomes that are not only low, but that are extremely volatile and unpredictable over the course of a year and from year to year. This is especially so in cases where income derives largely from agriculture, where 'shocks' such as poor rainfall, bush fires, pests, etc. can affect crop output and thus income. Unemployment and illness/adult of an adult member are also significant sources of economic shocks to households. However, in most low-income countries, no insurance exists for these kind of disasters or adverse economic outcomes. And if households can't save or borrow in credit markets, they must finance all consumption and investments in children (including education) out of current income. And such investments can be quite costly. If income falls in a given period, so too may consumption and investment in children, and it may become necessary to send children to work in order to meet basic needs. This notion of vulnerability and volatility may be critical in thinking about the factors that determine whether children work. Jensen (1999) finds that the death or illness of an adult household member is among the largest determinants of whether Pakistani children work. Jensen (2000) shows in an analysis of Cote d'Ivoire that poor harvests induced by bad rainfall lead to significantly lower incomes, which in turn cause dramatic declines in children's schooling, health, and nutritional status.

Household Factor 3.	Debt
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Income shortfalls due to the volatility described above could also lead to households incurring debt, especially from village money lenders or local merchants or craftsmen. And such debt in itself could be a cause of child labor. In many low-income countries, an occasional practice is that when a family incurs debt, part of repaying the debt involves a child becoming an indentured laborer to a party outside the household. In fact, this can often be among the most exploitative and abusive forms of child labor. Potential solutions might be found in programs that provide credit and loans to poor households in rural areas, such as the Grameen Bank in Bangladesh. Also, mechanisms to help households deal with economic shocks or income shortfalls, such as public insurance or credit programs, could help improve education and reduce the incidence of child labor. Debts incurred not because of income shortfalls but, say, to purchase equipment or household necessities could similarly lead to these problems, and again the provision of loans or credit could help prevent the adverse consequences debt may have on children.

Household Factor 4.	Family Size and Fertility
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Economists often refer to the so-called 'quantity-quality tradeoff,' regarding the number of children and investment in each child. Raising children involves large costs, and unless they work, for much of their early lives children do not earn income. There may be a tradeoff between the 'quality' and 'quantity' of children. If households have fixed income and there are costs to investing in children, having more kids means you can invest less in each one. There has been a large literature extending this hypothesis and providing empirical tests.

In light of the above argument, it is possible that households with more children end up providing less education for each child and may need to send children to work to help earn income to meet needs. A large question then becomes whether households have many children because they choose to (and choose to have a lot of children because they don't plan on spending a lot on the education of each one), or because they are unable to control their fertility (for example, because of lack of access to contraceptives. See Pritchett (1994) for a discussion and evidence on these issues). Alternatively, parents may not realize the costs of having so many children, and only too late recognize the inability to provide schooling for all of them or the need to have them work in order to meet needs. In any of these cases, the role of fertility is an often-overlooked potential factor in child labor, and information programs for parents or family planning strategies are an overlooked approach to the child labor problem. There is no empirical information available on this matter, but it is a hypothesis relevant for policy and worthy of empirical exploration.

Note also that in this context, girls may get less education than boys, even in the absence of a so-called 'pro-son bias' on the part of parents (though there may be). If the returns to education for boys are higher than for girls (they typically are higher for boys, often a reflection of discrimination against women in the labor market), then parents with limited resources will invest first in those children who will have the highest returns. This may mean that girls lose out to boys. Note further that for a given child, their level of education could depend on not just the number of siblings they have, but also on the sex-composition of the number of siblings. For instance, boys should receive more education if they have 3 sisters, compared to when they have 3 brothers (less 'competition' for scarce investment resources.) because there is less 'competition' for resources from sisters. Butcher and Case (1992), Garg and Morduch (1998) and Morduch (2000) find evidence to support this hypothesis.

Household Factor 5.	Household Structure and Migration
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There may also be task specialization and interdependence in the allocation of time for various members of the household. Households consist of many members and there is likely to

be scope for substitution of household members' activities. More importantly, the time allocation of any given member can't be considered without considering the allocation of other members. Thus, relevant for how much a child works is how much their parents, siblings or other relatives work, both within the household and away from the household (including as migrants). In fact, one might expect that for a given family size, all else equal, the greater the number of adult workers, the less likely it is that the child will work. Or, if households are extended, the children may spend less time on household chores if the elderly are able to help (or children may in fact have more responsibilities around the household if the elderly instead require care).

Note also that there may be substitution of time among members, as a child can work in the household while an adult female is employed, or vice-versa. This also tells us that if an adult member falls ill and is unable to perform their market work or household production, a child may be used as a substitute. For instance, Jensen (1999) shows that in Pakistan there is such substitution, especially along gender lines: boys are more likely to work if their father is unable to work or has died, and girls are more likely to work if their mother is unable to work or has died. One might also explain in this context whether there is any difference in the child labor rate by whether the head of the household is female. When adult males are deceased or work as migrants away from home, children may be expected to perform their tasks, either working on a family farm or business or earning income through employment outside the household.

Household Factor 6.	Parental Perceptions, Attitudes, and Aspirations
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Parents' perceived returns to education, attitudes towards schooling and aspirations for children's futures affect decisions about work and schooling. If parents don't perceive that education yields returns, they won't send their children to school. Parents may perceive that education yields little value, either because schools are low quality (bad teachers, no facilities or supplies) or because there is no visible evidence of the value of education in the village. Or they may not view the school curriculum as relevant to their children's future, either because it does not teach them practical skills, or perhaps they prefer, say, female children get married early rather than have a career which requires education (and in fact, education in some societies may be seen to make daughters 'less marriageable.')

Of course, a household's values are shaped also by the larger community around them. The question is then whether attitudes and perceptions are changeable through public information programs or whether it is even valid or ethical to consider attempting to change long-standing traditional systems of beliefs and values.

II. Factors External to the Household

External Factor 1.

Schools

The parental decision on whether the child works or goes to school is also influenced by whether the household has access to high quality schools that deliver value and are seen as appropriate, and are also affordable. Thus, the key issues are access, quality, relevance, the provision of value, and cost (an excellent discussion of these issues can be found in Braham and Braham 1999). A failure in any one of these dimensions could lead to children not going to school. If there are no schools nearby, children will not be able to attend, and thus will be more likely to work. If school quality is poor, parents will not see a value in sending their children to school. School quality is difficult to define, but it encompasses a situation in which children are provided with the means, instruments and motivation to learn. Security, sanitary conditions, textbooks, classrooms and qualified teachers with relevant, well-structured lessons are important components of school quality. Parents are less likely to send their children to school if the quality is low (Case and Deaton 1999, Jensen 1999). However, even if schools are themselves of high quality, if parents do not feel that there is a value in sending a child to school, they won't do it, regardless of quality (see point above).

Schooling costs will adversely affect schooling, by raising the cost of the investment. Such costs can be large; for instance, Jensen (2000) estimates that the costs of sending children to school in Cote d'Ivoire can be as much as one-third the median household income per capita. When households are poor and there are many children, such costs can be prohibitively large. Note however that large schooling costs may affect the schooling decision, but may not affect the benefits and costs of working, and thus not affect child labor. It is important to keep in mind that not going to school does not necessarily mean that the child works (though it often does).

There is literature on the 'returns to education,' comprising a large body of empirical evidence that schooling increases future income in low-income countries, even when children remain in rural areas to work on family farms. Yet, there are many empirical problems with this literature. And, this is not to say that the returns to education are always high for all children in all settings. Further, in some contexts, there may be returns to *not* sending a child to school. If there is little formal employment in a local village economy, it may be that a child's best prospects for future earnings is by becoming an apprentice and learning a skill, which may yield a higher return on average than getting more education.

External Factor 2.

Production, Technology and the Demand for Child Labor

It is also important to understand the demand for child labor by employers. For the sake of the discussion here, employers can be either formal or informal enterprises, and can refer to

family farms, not just outside enterprises. The basic economic model of production starts with the assumption that firms seek to maximize profits. In so doing, they hire labor, and in combination with land, capital and materials, they produce output. Among the firm's key decisions is how much of the various inputs to use, including child labor. The decision will be affected by the relative costs of the various factors and types of child labor, the substitutability between different types of labor (child and adult) as well as the substitutability between labor and other inputs into production (for example capital), as well market conditions, concerns of productivity, and the existing state of production technology available. From the perspective of the firm, children can be seen as more valuable workers if their marginal product of labor is greater than that of adult workers. This could be the case for example if children are able to perform tasks that adults are supposedly unable to perform, such as working in small, cramped areas (like mine tunnels), or weaving more intricate knots and patterns in carpets (the so-called 'nimble fingers' argument, which has been challenged by many). Of course, children may be worse workers because they are not fully developed physically or mentally. However, children may also be less likely to demand better conditions or capable of working longer, which employers may feel allows them to keep costs lower.

Of course, it is unlikely that children have a natural advantage in most forms of economic activity. Rather, it may simply be a matter of technology and relative costs. For instance, while children may be the only ones who can fit into small mineshafts, it is only as a matter of cost that mine tunnels are constructed in a narrow fashion. There is no reason that they could not be made larger, so that adults could work in them. And, again, often relative costs matter, and interact with technology. For instance, children are sometimes found working in quarries, carrying rocks and minerals out of quarry sites. It may be that it costs less to hire 3 children to carry the rocks, rather than the equivalent 1 adult worker who might be able to perform the same amount of work. However, here technology can become a factor. For instance, a wheelbarrow may mean that now an adult can perform the same amount of work as 5 children, since children would be unable to take advantage of the improved technology for carrying and moving the rocks. This could possibly mean, for example, that the employer now finds it in their best interest to obtain a wheelbarrow and hire adult labor.

Note that in thinking about the demand for child labor, we are referring to a household's use of their own children for labor on family farms or enterprises as well. In principle, if there were an active market for labor, and parents wanted to send their children to school, it would be possible to hire an outside worker instead of one's own child. The reasons this may not happen include lack of a market for labor, mistrust of others (monitoring and enforcement problems), insufficient income to pay a worker (and inability to borrow to pay a worker) or a desire to have a child learn the family business or farm. Understanding why families use their own children as workers can be just as important as understanding why other employers hire children, especially

since the vast majority of work performed by children is for their own household. It might also be that the availability of labor saving agricultural equipment and technology might reduce the household use of own child labor.

External Factor 3.	Social, Economic and Contextual Factors
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A variety of factors at the community, national and international levels also are likely to affect whether a child works. For instance,

- ? In the community, cultural and societal attitudes towards children and work are important. It may be that children are afforded little value or rights. Or it may be that work for children is not viewed as undesirable. It may be that work is considered a part of socialization into society for young children (especially boys), as in West Africa. In a context in which child labor is not shunned but perhaps even valued, efforts such as building schools may not have a great impact on reducing child labor unless information and attitudes are also addressed in an appropriate way. These issues also point out that the way to combat child labor will be both culture specific and must be culturally sensitive.
- ? At the national level, the legal rights of children, and even adult workers, and the enforcement of those rights is significant.
- ? On the international level, child labor is affected by global demand for products which are made using child labor, especially in light of increasing international trade and globalization.
- ? Other relevant international factors include international pressure to comply with labor standards and regulations, foreign and international laws regarding the import of products made using child labor, and pressure from advocacy and interest groups.
- ? Debt incurred by borrowing from international lending organizations is perhaps also an issue. Under Structural Adjustment Programs, many countries receive loans from the World Bank/IMF only conditional on (among other things) imposing school fees (several countries in Africa, for example Uganda, had to impose these fees, which had been non-existent since national independence) in order to assure international organizations that the recipient nation is conducting sound and responsible fiscal policy. An unintended consequence is that by imposing such fiscal austerity, many children may be prevented from attending school and driven to child labor. Current efforts towards debt relief (the so-called HIPC initiative) may prove valuable in this regard.

Chapter 3. Assessing the SIMPOC Survey Instrument

Our first objective is to overview and discuss the existing SIMPOC survey instrument. We base our analysis and evaluation on the draft questionnaire which was provided, "Survey of Activities of Children 5-17 Years of Age." Presumably, some surveys carried out in the field may have deviated somewhat from this template survey instrument, and thus will have to be assessed on an individual basis. We also assume that this survey is not carried out on its own, but in conjunction with a typical labor force survey, household structure, including family size, number of adults and children, whether the head of the household is female, the education and work status of other household members and possibly additional questions on income and measures of socioeconomic status.

The questionnaire was very comprehensive and thorough, covering a range of topics relevant to understanding child labor. The survey gathers information on children, how much they work, what kind of work they do, and some information on other aspects of the households in which children live. I have reorganized the questions so that they neatly fit into groupings on the basis of what information they provide, what their potential use may be and the rationale for asking these questions. The overview of survey content provided below is also summarized in table 1 in the appendix.

To create indicators of child labor and present a portrait of child labor for a particular country including the patterns, causes and consequences, the primary areas of need include information and questions on, 1) children's economic activity, including activity around the home, 2) schooling, 3) other activities or idleness, 4) information on children living away from home, 5) compensation for work, 6) workplace conditions and potential hazards for children, 7) impacts of work on children (including injury and schooling), 8) parental attitudes, perceptions and aspirations, and 9) household socioeconomic status. *The discussion is summarized in table 1.*

High quality work on such a complex issue requires a dynamic, flexible survey instrument, particularly one that can change over time with circumstances and as new knowledge is acquired. The need for flexibility will also arise as the demands of policy, planning, and research change over time. Therefore, throughout the review I also point out some additional issues within each of the 9 topic areas which future surveys might explore, and then also discuss some new topic areas which might be considered.

Many of the additions/modifications are an ideal 'wish-list.' There are obviously constraints on how much additional information could feasibly be added to the questionnaire. And since some surveys have already been conducted, there is obviously a desire for comparability. However, as new lessons are learned from data that become available, and based

on the particular needs of given countries or changes in circumstances over time, there should be periodic review of the instrument in order to refine it as may become necessary. Again, the power from such a methodology will come from its flexibility.

Topic Area 1.	Economic Activity
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Questions Asked:

- ? Was the child engaged in any economic activity in last 12 months (Y/N);
- ? Number of hours (usually) worked, separately for day, evening and night time during the past week
- ? How much work (category # months);
- ? Has child been engaged in housework in own home during the last week (# hours per day);
- ? At what age did the child start to work for the first time?

Discussion:

There are 5 primary questions that query directly for whether the child is economically active. They ask about whether the child was engaged in any economic activity; the number of hours per day and months per year; whether the child performed housework, including hours per day; and at what age the child worked for the first time. These questions will be the starting basis for the indicators of child labor in the next chapter. The questions are geared largely towards trying to uncover any form of economic activity. They go beyond simple economic activity, and get at larger issues of children's time allocation. This is important, because it includes housework, which might not be measured at all as economic activity under many standard survey approaches. In this regard, the questions are quite comprehensive.

Issues that future rounds of the survey might address

1. The questions only ask about one activity, not for example whether the child holds several jobs. For example, when the questionnaire asks about work hours per day and months per year, it is not clear if this refers to all combined economic activities in which the child participates, or just the primary one. If the child works many hours on a family farm, but also works a few hours a week making surgical instruments, will the child be asked to report about both separately, or the sum total of both? If the farm is the primary activity, will all questions about work (including working conditions, etc.) be asked only of the farm job? Children often hold a range of activities, from homework and farming/tending livestock, to perhaps several other jobs on the side. Some children may even work in both dangerous and non-dangerous activities.
2. Since one main concern regarding child labor relates to how it might interfere with schooling, questions asking not just about how many months the child worked, but whether those

months were while school was in session could be added. Or not how many days per week, but whether those were school days or weekends.

3. It might also be considered to ask questions about whether the child is looking for work (or more work), or would work (or work more hours) if the option were available. This will provide a notion of child labor 'potential,' or how much child labor there 'could be.' For example, while most activists and policy makers feel that since poverty is the cause of child labor then economic growth might help reduce or eliminate it, paradoxically it may be that growth could create a greater demand for child labor by employers and result in increasing wages. Thus, economic growth could actually increase child labor if there are more households that want to send children to work but are currently unable to find such employment.
4. The question on age first worked is useful, but might be a bit too vague, especially given how broad a definition of work the survey has engaged. It might also be valuable, if space constraints are not binding, to add survey questions to create more of a work and schooling history for each child. The reality of education in many low-income counties is that children move into and out of schooling and work over the course of many years. Working in one year does not mean that the child will work the next year, and not working one year does not mean that the child has not worked in the past.

		Any Work in 1987?	
		No	Yes
Any Work in 1986?	No	61.1	7.0
	Yes	13.1	18.7

For example, the table above show data from the Ivory Coast LSMS collected by the World Bank. The data are from a panel survey, so households were interviewed in two consecutive years, 1986 and 1987. We include measures of whether a child (here, boys aged 7 to 15) worked at all during the years of 1986 and/or 1987, where work includes work for own family business/farm or outside the household, but excludes home-work. The numbers in the table are the percentage of boys who worked, adding up to 100. We see that in 1986, $(13.1+18.7)=31.8$ percent of boys worked, whereas in 1987 $(7.0+18.7)=25.7$ percent worked. However, other interesting patterns emerge. First, 13 percent of boys worked in 1986 but not in 1987; this means that of all working boys in 1986 $(13.1+18.7)$, approximately $13.1/(13.1+18.7)=41$ percent were not working in 1987. This shows that work may be temporary, as children who enter the workforce don't all continue to work. Work may thus be a temporary activity and not imply permanent entrance into the workforce. Though without continuous information on children, it is hard to tell who moves into and out of work. Further, 7 percent of children worked in 1987 but not in 1986 (possible new entrants to the workforce),

so of children not working in 1986, 10 percent worked in 1987. However we do not know whether children who entered the labor force in 1987 were doing so for the first time in their lives, or had worked earlier. Establishing rates of new entrants or exit from the labor market, and how they correspond with other factors (such as macroeconomic factors including economic shocks, financial crises (as in Indonesia)) would be valuable research that could assist in policy design. An interesting question for research is whether children who enter the labor force tend to stay there, or enter only temporarily (such as during a household emergency, perhaps the illness or death of an adult member who provided income). In this spirit, it would be valuable to have more of a profile of when the child has worked (when first, and subsequent episodes), to try to match up to life events, such as illness or death of a parent, or migration of a parent, etc. with when the child works. And if we do find that these types of factors enter into labor markets, social insurance programs that target these types of household “shocks” may prove the most effective policies against child labor (for example unemployment or survivors insurance).

Topic Area 2.	Schooling/training
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Questions Asked:

- ? Are you currently attending school/training institution?
- ? If no, why not? (no suitable school available, need to support self, can't afford, not interested/bad at studies, failed, afraid of teachers, illness/disabled, need to help with chores, need to help with household business, need to work, family doesn't allow schooling)
- ? Was the child also attending school while they were engaged in economic activity?

Discussion:

Child labor and education are intimately intertwined, as discussed in the previous section. Though of course, the two are not always at odds with one another--children may be able to do both, or may in fact work so that the household can afford to send them to school.

There are three questions pertaining to education. These questions will allow us to examine correlations between school enrollment and work, since the two may not always conflict, but to the extent that they do we need to count that as part of an assessment of the impact of child labor on children's development.

Issues that future rounds of the survey might address:

Education is more than a 'Yes or No' quantity. Since education is at the core of the concern regarding child labor, we might consider adding a few questions

1. The survey might add questions that ask how many days of school the child missed, or how many days and hours per day they were in school last week, and how many hours per day

should they be in school. Further, child workers may still be enrolled in and attending school, but there may be impacts on these children, as they may miss class, may be fatigued during the day and less attentive in class, or have less time to study. My work from Pakistan (Jensen 1999) shows that even controlling for the number of years of completed education (and other factors), children who work are less likely to be literate or numerate.

2. There should be questions about what grade level a student is enrolled in. This will allow us to construct measures of school-for-age distortions, which give indications of whether work impedes regular progress through school. Related, we might ask about grade repetition.
3. Since schooling is fluid and dynamic, for children not currently attending school, there should be questions about intent to return to school, or the desire to return to school if/when they are able to. Child labor, especially if it is only for short periods of time, may lead to more years required to complete a certain level, but may not affect the ultimate completed level or learning status. Asking adults about their completed education, and retrospectively about how old they were when they started to work and how old when they finally left school might help in this regard.
4. The survey should add some additional questions relating to access to schools; as it is now, children can report no access to schools as one reason for not attending school (see below, causes), but this could be expanded. Further, since the respondent presumably only gets to choose one response to this latter question, they may not always choose school access as the primary factor, even if it is relevant. It might be desirable to ask about how far it is to the nearest school, how long it would take to walk there, how much it would cost to get there if transportation is needed. It might be possible to include these questions as part of a community questionnaire (see final chapter). If part of ILO/IPEC initiatives to combat child labor is to increase access to schools, we would need this measure as an indicator of program success.
5. Given that our true interest in education is with learning and the accumulation of knowledge and skills, one unique approach might be to give simple tests of arithmetic, reading and writing, as part of the survey (or to a smaller sample of children, maybe even just one or two in each household). There are simple tests (example, the Sabot test) that can be implemented in a fairly easy, quick, low-cost way that delivers meaningful measures of knowledge and learning. Education is more than enrollment, it is (among other things) the production of knowledge and skills. Should test this, for example by showing a series of simple words in local language and seeing if child can read them, or by asking the child to write a few words.

Topic Area 3.	Other activities/idleness
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Questions Asked:

- ? Was the child idle in the past week? (did not do anything last week--survey defines this as not attending school, no engaged in economic or non-economic activities).
- ? If idle, why?
- ? What does the child do for fun when not working? (Play with others/watch TV, study).

Discussion:

Questions of idleness are important, because there may be many children who neither work nor attend school, and these are special cases from which much can be learned. For example, households may not have enough income to send a child to school, but may live in areas where there is not a large, active market for child laborers.

To complete the time accounting, the survey might ask specifically about the amount of children's leisure, rather than just what they do for fun when not working. Not only is this an indicator of children's well-being, but will also be useful in examining whether child labor displaces schooling, or if leisure is reduced before schooling is.

Topic Area 4.	Work/school information on children living away from home.
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Questions Asked:

- ? Give name, gender, age of all children living away from home. Do you know where they live? (Y/N). Where do they live?
- ? What do they do? (work, attend school). Is that child in touch with the household? (Y/N). When was the last time they were in contact with this household? Do they send money or goods?

Discussion:

The survey collects information about children living away from home. In much of the developing world, many children spend part of their childhood living away from their biological parents (for example, in the Ivory Coast, as many as 20% of children aged 10 and under are living away from their parents at any given time). Sometimes it is for work, sometimes for school, sometimes because of financial circumstances. It is important to know whether children living away are working or going to school. This will also help us look at household strategies, which may require sending a child to live elsewhere.

Issues that future rounds of the survey might address:

1. Questions should be added that ask for the relationship of the person the child lives with, i.e., family, an employer, etc.
2. Coupled with this, questions on the number of children that the primary woman in the household has ever given birth to (separately for boys and girls) and who are still alive, could possibly be used to account for 'missing children,' i.e., those children who are still alive but whom the members of the household are no longer in contact with. On the one hand, this is valuable information to get a sense of potential number of children living on the streets, and possibly working, especially in 'worst forms' of child labor. In fact, using women's reported fertility histories and estimating 'unaccounted for children' may be one of the few ways to try to quantify the magnitude of the problem of street children or the worst forms of child labor. However, it may be a sensitive issue to ask about children who are missing from the household, and there are ethical and humanitarian concerns in asking respondents about this information. It may also make the respondent less willing to cooperate with the remainder of the survey.

Topic Area 5.	Compensation for Work
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Questions Asked:

- ? Amount child was paid for work, including rate of pay (piece rate, hourly, weekly, monthly)
- ? Do you work overtime and get paid for it? (Y/N)
- ? Do you receive wage payment prevalent in your locality? (Y/N)
- ? Which of the following benefits were provided to the working child by their employer? (paid holiday, paid sick leave, social security insurance, bonuses, uniforms, free or subsidized meals, transportation or lodging)
- ? Do you give part/all of your earnings to you parents or other relatives?
- ? Do you save any part of your earnings?
- ? If yes, why do you save? (start business, go to school/training)
- ? If child stops working, what will happen? (household living standards decline, household can't afford to live, household business can't run).

Discussion:

These questions can help to serve both as an indicator of how children are treated in the labor market (especially as compared to adults--though it must be kept in mind that lower wages for children compared to adults does not necessarily imply exploitation, as children are likely to be less productive than adults). They can also be used to assess the potential impact that programs designed to eliminate child labor will have on household well-being, as they can be used to construct measures of how much of the household's income is derived from child labor. (It of course must be kept in mind that other household members may work more if children are

removed from the labor market, and also that wages might rise when children are withdrawn from the labor market, due to the decreased aggregate labor supply (fewer workers, so employers bid up wages trying to hire the remaining workers), for example see Basu and Van (1998).

The final question in the box above (Question 10.3 in the survey) is particularly valuable because it is the one question that attempts to get at parental or child motivations for working. Further, it is also valuable as part of assessing the impact of programs to eliminate child labor on the children and their households.

Topic Area 6.	Workplace Conditions and Potential Hazards for Child Workers
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Questions Asked:

- ? Does child use any protective wear while working? (glasses, helmet, earplugs, gloves) (asked of adults on behalf of children). Do other people doing the same work use protective wear while working? (Y/N). If so, what do they wear?
- ? Are you required to operate any tools, equipment or machines at your workplace? (Y/N)
- ? Aware of any hazards or health problems associated with your job (Y/N)
- ? Do you face any problems or difficulties with present job? (Y/N)
- ? How is your relationship with your employer (good/bad/indifferent)? If bad, why?
- ? Are you satisfied with your present job? (Y/N). If no, why not? (wages too low/work too tiring/employer too hard/earnings too low).

Discussion:

These questions help relate child labor to adverse working conditions. Ultimately, it is desirable to provide a distinction between different forms of child labor, based on how much they potentially endanger the child. Finding out these most hazardous environments will also be important for targeting programs and designing workplace interventions that improve working conditions. There are several approaches which one might use for identifying hazardous industries or occupations. The method applied in the survey is one such method, whereby we infer dangerous industries and work from the conditions that children report, or whether they are working with tools or equipment which could lead to injury. This is supplemented with questions below on the consequences of child labor, namely identifying hazardous work by children's reports of having been injured or become ill at work.

Issues that future rounds of the survey might address

1. It might also be possible to supplement these reports with in-depth case-studies of industries where children work (which will be revealed through the survey). However, the difficulty with this approach is that though it might allow a more detailed depiction of some of the work hazards found in particular industries, it must also be kept in mind that children can work in hazardous industries and not perform hazardous work, or can work in non-hazardous

industries but perform hazardous work. Thus, by focusing on industry information alone, we will tend to over-generalize. Thus, the combination of industry studies and children's reports of working conditions together help present a more detailed depiction of the potential hazards faced by child workers.

2. Although the survey asks children to report about potential dangers at the workplace, one concern is that children may not be aware of certain dangers. For example, they may not know whether certain chemicals are safe or not, and may not be aware of high levels of airborne pollutants or asbestos. Especially since Conventions gives prominence to certain working conditions as being particularly hazardous, the survey could probe for additional specific attributes of working conditions. For example, the child could be asked about exposure to excessive heat or noise, enclosed spaces or work underground or underwater (all areas which are identified as among the most hazardous forms of child labor).
3. The questions about use of protective equipment must also be interpreted cautiously, because without more detailed information on the work environment or conditions, we don't know whether they don't wear equipment because they don't need it, or because it is not provided. If additional questions were asked about work conditions, then we might be able to use this information to provide a greater assessment. And again, although adding questions runs the risk of lengthening the questionnaire considerably, the fact that exposure to hazards are central to our concern over child labor suggests these additional questions might be worth adding. This is especially the case if child labor interventions will focus on working conditions, and we need to monitor changes in these conditions over time in order to assess the impact of interventions.
4. There are perhaps a few other questions that we might ask of children regarding their working conditions: Do you work indoors or outdoors. How long do you work in one shift? Do you take any breaks? Are you usually too tired after you work to do anything else? Overall, these questions can give a sense of the physical burden and fatigue created by child labor.
5. Also, for all of these questions, we don't know the working conditions for adults, and thus we can't compare whether children are treated worse than adults. Is it just that case that working conditions are bad in low-income countries (which are more likely to have child labor), or are children treated worse than adults? This also speaks to whether children are exploited within the workplace, and perhaps whether child labor is used because children are less likely to demand better conditions. Adding questions on working conditions of adults could help.
6. The questionnaire seems to only indirectly ask about where the child works, in terms of physical location. The place where a child works is important. This is a separate issue from the issue of who the child's employer is, since children may work for a family enterprise which is not based within the home. Also, it could be that children work for other employers, but work within the household. Distinguishing this will be important for thinking of the level at

which intervention takes place, and also for analyzing the impacts of programs. It may be that programs such as those that monitor workplaces or factories for child labor, employers may simply switch to providing home-work, especially for small tasks (ex. stitching footballs) that can be done within the household and need not take place in a factory.

7. Additional questions (or supplementary approaches such as establishment surveys) may be required since it may be that neither the parents (who may not know the child's working conditions) nor the children (who may be too young to recognize and assess hazards) are in a position to report accurately about hazards (see Forastieri 1997 for further discussion for assessing health and safety risks for children in workplaces).

Topic Area 7.	Impacts of Work on Children
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Questions Asked:

- ? Ever been hurt at work (Y/N).
- ? If yes, what was the nature of the injury? (general/fever/cold, eye/ear infection, skin problem, breathing problem, stiff neck, back problem, anaemia).
- ? How serious was the most serious accident (not require medical treatment, treated and release immediately, stopped work temporarily, hospitalized, prevented work permanently). If stopped work or hospitalized, for how many days? activities performing when hurt; type of injury;); who paid for medical treatment; access to/use of protective equipment (helmet, glasses, gloves, etc)
- ? Ever been hurt at work (Y/N). How often hurt (often/frequently, occasionally, seldom/rarely). What were the activities (industry) in which child was working when hurt? What were the jobs held or occupation in which child was working when hurt? What type of injury? How serious was the most serious accident (not require medical treatment, treated and release immediately, stopped work temporarily, hospitalized, prevented work permanently). Where did you consult a doctor? (at home, work, hospital, dispensary, clinic). Who paid for medical treatment (employer, parents, self, free).
- ? Does work affect your regular school attendance or studies? (Y/N)

Discussion:

These questions measure the impacts of work on children, and along with working conditions help categorize adverse circumstances of child labor. While the working conditions questions above provide some information with which we can assess the plight of working children, and may also be useful in trying to target which kinds of work involve the most exposure to potential dangers, these questions actually directly address whether children were hurt. This gives a better view of how dangerous work is, rather than an attempt to piece together a story of hazards from information on equipment and machinery.

Issues that future rounds of the survey might address

1. It might be valuable to collect information on injury rates and working conditions of adults as well. The interesting comparison should be whether children work under worse conditions

than adults and whether as a result of their age (less attentive or aware of potential dangers) they are more likely to be hurt than adult workers. We can examine whether injury rates of children are do to working in worse conditions than adults or whether children working in similar conditions and performing similar work are more likely to be hurt than adults.

2. One potential problem is that children who die as a result of injuries at work are not recorded in the survey, since parents are not queried about children who are no longer alive. It might be valuable to add questions, especially in the context of adding questions about women's fertility histories, about whether children are no longer living, and if so their cause of death. Or perhaps query more directly about deaths of children from workplace accidents.
3. In this spirit, to get at seriousness of injury, the survey might also add a question about whether the injury to the child resulted in permanent disability (rather than or in addition to 'had to stop work permanently,' as the survey currently exists).
4. Other questions related to the general health (not just illness or injuries) and nutrition of the child could be added, as well as measures of basic learning competencies (literacy, numeracy, life skills, etc.)

Topic Area 8.	Attitudes, Aspirations and Perceptions
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Questions Asked:

- ? Why do you let the child work? (need income, pay debt under contractual arrangement, assist household enterprise, education not suitable, education institution too far).
- ? If given a choice, what would you prefer child do in the future? (go to school full-time, work full-time, help around the household business full-time, school part-time and work part-time, part-time in household business, part-time in housekeeping our chores, complete education and find work, find better job than present one).
- ? If given a choice what would you like to do now and in the future?

Discussion:

As discussed in chapter 2, sending a child to school and/or work reflects perceptions of these activities as well as intentions for the future, and we should try to collect more information on these matters. While there are technological and other macroeconomic variables which create a demand for child labor, and households face constraints, parents (or perhaps children also) ultimately decide whether to send a child to work, to school, both or neither. Questions on attitudes and perceptions, while more subjective, are valuable vehicles for uncovering the process by which the decisions regarding children's time allocations are made. This is especially so with respect to gender roles and aspirations for children; for example, parents may prefer their daughters marry and have a family rather than a career which requires education. If education does not improve marital prospects (or harms them if there is a belief that educated women are less desired as wives), education will not be seen as worthwhile. These questions on attitudes, perceptions and aspirations will also help address issues of 'culture' which may be an important and often overlooked aspect of the phenomenon of child labor.

Note also that these are the only questions that directly address the 'causes' of child labor. While there are always concerns over the validity of the responses to such questions (they 'lead' the respondents towards a particular response, or they are too subjective to interpret), they are still extremely valuable, since understanding the reasons children are sent to work must be the cornerstone of policies aimed at eliminating child labor (see chapter 5).

Issues that future rounds of the survey might address

1. The last question seems to be about what you prefer the child to be doing in the short term, since it refers to activities like schooling, chores, etc. It would also be nice to have questions about longer-term parental aspirations for children. For instance, do parents want children to stay at home and work the family farm; do you want daughters to marry or to find outside work. Ask perhaps what would you like the child to be doing 5 years from now? 10 years? 30 years? Similar questions could be asked of the child, for instance what would you like to be when you are a grown-up? Would you like to be able to go to school more? Such questions might not be meaningful to children, but to the extent that children's rights suggests that children have voice and rights of their own, these may be valuable opinions to solicit.
2. Other questions about attitudes that would be interesting would include parents' valuation and perception of schooling. What are the main reasons for not sending child to school? What are the main problems with the local school? Low quality? Curriculum and learning seen to be not relevant? What are the perceptions of the returns to education? (i.e., do you think you could earn more money some day if you went to school, etc.). Is work preferred because skills are imparted that will be valuable for employment in adulthood? These questions could reveal whether there is a potential role for public education programs for adults aimed at changing perceptions or misconceptions about the role of education for children.

Topic Area 9.	Migration
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Questions Asked:

- ? Has this household ever changed the usual place of residence? (Y/N). Where was the last place of residence? What was the main reason for changing to present place? (job transfer, found a job, looking for a job, education). How long has this household been in current place of residence.
- ? For children 7-15 in the household: Has the child always lived with the present household (Y/N). If not, where did they live before? What were they doing in the place they lived before? (working, attending school, working and attending school). Why did they come to this place to live? (job transfer, found a job, looking for a job, schooling). How long have they been living in the present place?

Discussion:

These questions provide information related to whether the household has changed residence, and this could be used to see how such relocations affects children's employment or schooling. This is also particularly relevant for analyzing issue of urbanization and how that affects children's schooling and work. There are also questions related to whether the child has moved to this household, and the role that

employment played in that move. Since children often leave their households for employment related reasons, these questions capture valuable detail.

Issues that future rounds of the survey might address

1. An additional relevant issue in migration for most low-income countries, especially in rural areas, is that individual members of households migrate to find work, especially seasonally. For instance, an adult male head of household might migrate to the city or to a rural area and live away from the household for many months. The interesting question for analysis is, how does this affect the allocation of the child's time? Does the father leaving the household (for employment, higher wages, or otherwise) mean that the child takes on the father's activities, such as tending livestock or farming, rather than attending school? If a woman migrates, do children take on some of her responsibilities around the household (farming, cleaning, cooking, caring for young children). Households engage in a range of activities and have a number of people who can perform those tasks. The activity of each individual can only be understood by knowing the activities of the others. There is a need to know about adult behavior to understand why children work or go to school or cook, etc., and the extent to which child and adult labor are substitutable in household activities. This also underscores that perhaps employment information of the adults in the household could be gathered (unless the survey is conducted in conjunction with a labor force survey which already collects this information).

Topic Area 10.	Household Socioeconomic Status
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Questions Asked:

- ? What is the estimated average monthly expenditure of this household? Average monthly income? What is the main activity from which the household derived income in the past year (self employment in agriculture or otherwise, agricultural laborer, other casual labor, regular employment, pensions/dividends/interest, etc.)
- ? Ownership of household durables/assets (TV, VCR, radio, refrigerator, telephone, car, cycle, motorcycle).
- ? Ownership status of present household dwelling (own, provided free by employer, rented from private owner, rented from government, subsidized by employer); If rented, how much pay per month?
- ? Housing conditions: Type of dwelling; Number of rooms; facilities (kitchen (inside house, outside house, shared with others), bathroom (inside house, outside house, shared with others)); Sources of lighting (electricity, kerosene); Sources of drinking water (tap/inside house, tap/outside house, tube well, manual well, hand pump, ponds); Sources of fuel for cooking (electricity, natural gas, cylinder gas, kerosene, wood).

Discussion:

These questions can help capture and test the 'poverty' explanation of child labor, i.e., that households can't afford to invest in children, or that children are sent to the household because the household is too poor. Poverty is often cited as the primary cause of child labor, and these variables will be useful correlating the relationship between child labor and household income and wealth.

Issues that future rounds of the survey might address

1. As the discussion in chapter 2 indicated, it is often income volatility and economic shocks that affects child labor, not just the current level of income. So it might be worth asking whether the household has

faced any economic shocks, for example: death of a family member/income earner; illness or injury that prevents a household member from performing their usual activities (this will allow us to determine if, for example, the mother becomes disabled the daughter is removed from school and works in the household); crop failure, due to for example pests, fires, flood or drought; theft, fire or other loss or destruction of property; loss of livestock. These questions could allow us to determine how much income insecurity and volatility affects child labor, namely whether children's labor is a form of coping mechanism, an insurance policy (akin to an 'added worker effect.'). After these questions, it might also be asked directly if the household had to do something to cope with these losses, such as borrowing money; taking children out of school; sending children to work; increased use of children for household activities; or selling property. There could also be questions on whether, if the child was removed from school, if the household plans to have the child return to school if/when income is stabilized. Finally, there could be questions on whether after the economic shock the household received support or assistance from the government, family, friends or the community. It may be that some households have stronger 'safety nets' that allow them to cope with economic shocks without having to send children to work or removing them from school.

2. Income and expenditure are notoriously difficult to measure, and often one single question might provide little valuable information. Income is very complex, rarely involving a simple, regular pay-check. It involves home production, where the purchase of inputs, depreciation of equipment must be considered, as well as payment-in-kind, including meals, lodging and transportation. Income also often involves transfers from other households (children or other household members living away from home, possibly as migrants, sending home money), transfers from the government, barter or exchange of goods or services in-kind, etc. It is unlikely that a simple, catch-all question reveals much information that can be useful for data analysis. The World Bank Living Standards Measurement Surveys (LSMS) have developed detailed questions to deal with complex issues in the measurement of income and expenditure; the effort often entails from 3 to 15 pages of questions. While this is not feasible here, adding just a few more detailed questions might substantially improve the measurement of income. It may be worth considering how to design a set of minimal income questions which can be implemented in these surveys easily. In particular, by adding a few categories of income, we might get much more meaningful estimates. Those categories could be: income from wages or salary for work, either regular or irregular, formal or informal; transfers or gifts from family members or friends (remittances, especially from migrant workers, tend to be a large component of income in many low-income countries); transfers from the government; earnings from the sale of farm output or other home enterprises, after accounting for expenses; and finally an open-ended list of all other sources of cash that enter the households. These questions still are not ideal compared to a detailed income survey, but are perhaps better than a single question, and do not significantly lengthen the survey. (This applies more to cases where the survey is a stand-alone effort, since in cases where the survey is coupled with a labor force survey within the host country, such additional questions will typically appear in the survey anyway).
3. The ownership of assets, durable goods (radios, television, bicycles, automobiles, telephone or stove) or wealth are valuable measures, and the survey might also ask about jewelry, cash, amount of land owned and livestock. For example, livestock serves as wealth in West Africa, or rugs or jewelry in the Middle East; they store value, are bought in order to save income, and can be sold when income is needed (in the spirit of the volatility/vulnerability story in Chapter 2). Wealth takes many forms in low-

income countries, and the purchase and sales of such assets are mechanisms through which households save and buffer against income shocks. For assessing the role of poverty and socioeconomic status on child labor, adding measures of wealth might be important.

4. Finally, there should be perhaps some questions related to debt, the relevance of which was discussed in the previous section. It would be desirable to separate short term debt, due to an economic shock or immediate need (ex. health expenses) compared to longer term structural debt rooted in poverty more than volatility. For the former, public or NGO-sponsored loans, credit or insurance programs could help prevent child labor due to debt.

Areas which the survey does not currently treat, but for which questions might be added

Information about firms

In the current survey, there are a number of questions about the equipment that children use, and the industry and occupation of the child. However, we might consider adding a few questions about the employer or enterprise that the child works for, that are less about conditions and more about why firms hire children, or the attributes of firms that hire children. While the ideal way to do this is with a firm-level survey, this might not be possible since firms may not participate. This is just one possibility of how we might get a little more information about firms, from the workers themselves. Further, as in point 4 below, we might be able to query about why households use their own children as workers rather than hiring in other workers.

Possible questions:

1. About how many other people work there? How many adults and how many children? How many men and how many women? [Rationale: The size of firms tells us a lot about the firm, informalization, structure, etc.]
2. Do you work mostly with other children?
3. Do adults perform the same work that you do? [Rationale: trying to get at technology, why firms hire child labor, etc. Also useful to know if children are working in places where only children work, or if children work with adults]. Might also ask children if they feel that the work they perform could or could not be performed by adults if necessary.
4. As discussed in chapter 2, understanding why families use their own children as workers can be just as important as understanding why other employers hired children, especially since the vast majority of work performed by children is for their own household. To get at why households employ their own children as workers, we might also add a question for households about whether an adult outside the household could perform the same work as the child, and if so, why don't they use the child instead (possible responses: want child to learn family business/farm; no workers available; don't trust others; not enough money to pay a worker). One potential problem with asking this question is that it is somewhat accusatory.

Chapter 4. Indicators of Child Labor

The core focus of the TOR for this report is the development of indicators of child labor. The purpose is to help achieve the following goals: 1) make an accurate assessment of the magnitude of the problem of child labor as it exists now, 2) establish and examine patterns that may point out potential factors and causes of child labor, 3) aid in the design of programs intended to address child labor and identify priorities within countries. The results will be useful to policy-makers, advocates and researchers within and outside the participating countries. It will also serve as a focal point for advocates, by establishing a database and accompanying documents to focus international efforts and attention on the issue of child labor.

The goal is to create indicators which are easy to calculate, understand and interpret, and which have comparability across different countries and contexts, and over time. The ideal measures should draw attention to the forms of child labor most hazardous to children. The measures should also be gender-sensitive. Often, activities, especially around the household, are labeled as work for boys and chores for girls. But at their core, the activities of girls around the home can be as hazardous and time-intensive (and thus potentially in conflict with schooling) as all other forms of child labor, so special care must be taken in assessing this often unrecognized form of child labor.

DEFINING CHILD LABOR

The starting point for creation of indicators of child labor is a review of the definition of child labor. Various UN and ILO Conventions provide a framework for these definitions (see box on next page), but legislation specific to each country is also an important component for providing some details. The 1989 Convention on the Rights of the Child states that children should be free from economic exploitation and any work that is hazardous, interferes with schooling, or harmful to their health or development. ILO Convention 138 (Minimum Age Convention) and Minimum Age Recommendation (146) prohibit employment of children under the age of 15. The Convention provides that the minimum employment age should be consistent with the fullest physical and mental development of young persons. However, the convention begins to recognize a distinction in the various forms of child labor. For instance, Article 3 states the minimum age should be 18 for work which is likely to "...harm the health, safety or morals of children..." whereas 13 years is an acceptable age for 'light' work which is "...not likely to be harmful to [children's] health or development..." and "...not such as to prejudice their attendance at school..."

Thus, there begins an explicit recognition that not all forms of child labor are alike, and that some are more detrimental and require greater prohibitions than others, with the distinction

based around the potential impact on children, including schooling, health, and physical and mental development.

Conventions on Child Labor, Including Selected Passages

? (1973) Convention 138 Minimum Age Convention and Minimum Age Recommendation (146): prohibit employment of children under the age of 15. The measure states the minimum employment age should be consistent with the fullest physical and mental development of young persons.

“The minimum age for admission to 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 shall not be less than 18 years.” (Article 3)

“National laws or regulations may permit the employment or work of persons 13 to 15 years of age on light work which is--

(a) not likely to be harmful to their health or development; and

(b) not such as to prejudice their attendance at school, their participation in vocational orientation or training programmes approved by the competent authority or their capacity to benefit from the instruction received.”

(Article 7)

? 1989 Convention on the Rights of the Child:
Article 32: *“...recognize the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or interfere with the child’s education, or to be harmful to the child’s health or physical, mental, spiritual, moral or social development.”*

? 1999: ILO Convention 182: calls for
“...immediate and effective measures to secure the prohibition and elimination of the worst forms of child labor.”

Where the worst forms are defined as:

“...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 labor, including forced or compulsory recruitment of children for use in armed conflict; the use, procuring or offering of a child for prostitution, for the production of pornography or for pornographic performances; 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; 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.”

Recommendation (190): (Article 3)

“In determining the types of work referred to under Article 3(d) of the Convention, and in identifying where they exist, consideration should be given, inter alia, to:

(a) work which exposes children to physical, psychological or sexual abuse;

(b) work underground, under water, at dangerous heights or in confined spaces;

(c) work with dangerous machinery, equipment and tools, or which involves the manual handling or transport of heavy loads;”

ILO Convention 182 and Recommendation (190) further implicitly recognize such a distinction among various forms of child labor, by calling for priority in the elimination of the worst

forms of child labor (including slavery, bonded labor, child soldiers, commercial sex trade or pornography, drug trafficking, and work which could harm children's well-being). Note that while the Convention is explicit in listing particular forms of child labor which are considered the worst forms, the final phrase is less explicit, in stating that we should attempt to eliminate any work that is "...harmful to the child's health or physical, mental, spiritual, moral or social development." Recommendation 190 enumerates various elements that need to be taken into account in determining the list of hazardous work, including exposure to abuse, or work that is conducted underground, under water, at heights or in confined spaces, involves dangerous equipment or tools, unhealthy environments or hazardous substances, or any work under particularly difficult circumstances including excessive hours or being confined to an employer's premises. Determining which forms of work fulfil these criteria is done at the national level after tripartite consultation in terms of Article 4 of C.182. For the development of indicators below, it will be important to adopt the details determined by each particular state.

Thus, the U.N. Conventions and Recommendations provide rules that while identical for all ratifying states, allow flexibility that could create differences across these states. Each ratifying State determines specific details, for example by establishing the minimum age for employment or work (C. 138, Article 2 states that 15 is the general requirement, but it can be as low as 14 for developing countries. Further, some developing countries state that the age should be 16) and specifying what are the types of work to be prohibited under age 18 as hazardous work (C. 138, Article 3).

For the purposes of the creation of indicators, the framework set forth by the Conventions and Recommendations leads to two distinct key measures. The first is whether a child is 'economically active,' (or a 'child worker'). This is a very general definition, encompassing any work for pay, or unpaid family or domestic work. The second measure is specifically child labor, meaning that the child's work is inconsistent with the principles set forth under the Conventions and Recommendations, namely that the child is below the minimum age for a given industry or type of work, or the child works excessive hours or under bad conditions or performs work that is potentially harmful. While child labor is clearly of greater interest, any policy that also has an effect on reducing child work would also be valuable, and thus it is important to consider it as well in designing indicators.

The Indicators

The following matrix presents the set of types of indicators relevant to this report:

Context in which programs operate (global, regional, national, local)	Development Indicators (Impact)	Key Child Labor Indicators	Indicator Set 1
	Contextual Indicators	Thematic Indicators ? micro factors within household ? factors external to the household	Indicator set 2 Indicator set 4 below
At Policy/Program Level	Policy/Program Indicators	Outcome/Effect Indicators (indicators of program achievement)	Next Chapter, Policy
		Performance Indicators (Targets, output)	Next chapter.

The first two sets of indicators, those that describe the key indicators of child labor (Development Indicators) and contextual indicators (factors related to child labor) are discussed in this chapter. The discussion of Policy and Program Indicators is left to the next chapter on impact assessment.

We will propose a flexible range of indicators, which individually provide valuable measures, and collectively provide a portrait of the condition of child labor in a given country. Here we simply present the indicators, which are useful for description and assessment. In the next chapter, we discuss the role of these indicators and other data in policy analysis, design, and evaluation more generally, and discuss how these indicators might be used for those purposes, what their limits are, and what additional data and methods are needed to fill in the gaps.

Within the so-called 'Development Indicators,' we distinguish 3 cases: The first set of indicators is simply for child labor itself, derived from the surveys. The second set refers to factors that speak to the causes of child labor, and the third relate to the consequences. Finally, a fourth set relate to contextual information, i.e., information about the conditions external to the household, such as the economic conditions, trade, society, culture, etc. *Note: a tabular representation of the indicators appears as table 2 in the appendix.*

Indicator Set 1. Work: Incidence and Magnitude

These indicators describe the basic situation of child labor: Incidence, magnitude and patterns. These measures will be best used for assessing the magnitude or pervasiveness of the problem. These results can also be among the most powerful tools available for raising awareness and general advocacy. Presenting an accurate assessment of the problem will be useful for mobilizing resources. They are also valuable for targeting, say by region or gender.

Indicator 1a

Economically Active Children (child workers)

Definition: The number of children who are economically active, i.e., they reported to have worked either for pay (cash or in-kind), or unpaid family workers during the reference period.

Data requirements: Data on economic and non-economic activity status of target child (age 5-17). Available from the current SIMPOC instrument.

Break-downs: Should be presented separately by: age group; gender; urban/rural; region.

Notes:

- ? A key issue here is that in order to conform to pre-existing ILO and internationally applied definitions relating to adults, domestic labor in one's own home or chores are not treated in defining economically active children. The concern over the gender disparity that might thereby be created (ex., boys' work around the home may be labeled unpaid family work by the household whereas girls' work is considered chores) is addressed by considering indicators below relating to child domestic work, and the total time spent on all activities, including domestic work. Since we are mostly concerned with children's performance of household activities when they involve excessive hours or working in hazardous situations, not regular household chores, it is important to separate this work from other forms of economic activity. But, again, it will be important in assessing hazards or excessive hours of child work (indicators below) to make sure that domestic labor or chores are not excluded.
- ? Indicators 1a and 1b present both numbers of children and rates of employment. For advocacy, resource mobilization and policy planning, it is important to distinguish countries that may have, say, a high number of children working, but the overall percentage of child labor participation is low, compared to, say, a country with few child workers, but they represent a high percentage of the total child population. These are two very different cases with distinct policy implications, and thus it is useful to present both indicators.

Indicator 1b

Labor Force Participation Rate

Definition: The percentage of children who are economically active, i.e., they reported to have worked either for pay (cash or in-kind), or unpaid family during the reference period.

Data requirements: Data on economic and non-economic activity status of target child (age 5-17). Available from the current SIMPOC instrument.

Break-downs: Should be presented separately by: age group; gender; urban/rural; region.

Notes:

- ? Same as above.

Indicator 2a*Child laborers*

Definition: The number of children who are child laborers, i.e., they reported to have worked either for pay (cash or in-kind), or unpaid family and domestic workers during the reference period, and the nature of the work or amount of time spent working meets any of the following conditions: the child is below the minimum age for the industry or type of work which they perform; the child works excessive hours; the child works under unsafe conditions (including if that involves domestic labor); child works in one of the 'worst forms' of child labor identified by C. 182; the child works under conditions as specified domestically in reference to Article 4 of C. 182.

Data requirements: Data on economic and non-economic activity status of target child, as well as age of the child and the set of working ages for various industries and hazardous jobs set by that particular country. *Age, activity, industry and hours worked available from the current SIMPOC instrument.*

Break-downs: Should be presented separately by: age group; gender; urban/rural; region.

Notes:

- ? When computing hours working to see if they are high enough to qualify as child labor, must include chores and domestic work so girls aren't undercounted.
- ? Children qualifying as child laborers are also child workers. But indicators 2a and 2b are more strict, for example excluding children who work only a few hours a week or in less hazardous conditions.
- ? It is important to recognize that indicators 2a and 2b are not strictly comparable across countries. Since discretion is given to each country to define the minimum working age, there will be variation in what is considered child labor. Since the Conventions and Recommendations are designed to allow countries to determine some of the specifics, those particular, individual definitions should be respected in measuring child labor. However, for comparability across countries, we might also consider a measure with a fixed line of say 15 years. Though it must be kept in mind that even with a uniform definition, what is considered child labor by such an indicator may not be seen or treated by child labor at the level of the individual country.

Indicator 2b*Child Labor Rate*

Definition: The % of children who are child laborers, i.e., they reported to have worked either for pay (cash or in-kind), or unpaid family and domestic workers during the reference period, and the nature of the work or amount of time spent working meets any of the following conditions: the child is below the minimum age for the industry or type of work which they perform; the child works excessive hours; child works in one of the 'worst forms' of child labor identified by C. 182; the child works under conditions as specified domestically in reference to Article 4 of C. 182.

Data requirements: Data on economic and non-economic activity status of target child, as well as age of the child and the set of working ages for various industries and hazardous jobs set by that particular country. *Age, activity, industry and hours worked available from the current SIMPOC instrument.*

Break-downs: Should be presented separately by: age group; gender; urban/rural; region.

Notes:

- ? When computing hours working to see if they are high enough to qualify as child labor, must include chores and domestic work so girls aren't undercounted.
- ? Children qualifying as child laborers are also child workers. But indicators 2a and 2b are more strict, for example excluding children who work only a few hours a week or in less hazardous conditions.
- ? It is important to recognize that indicators 2a and 2b are not strictly comparable across countries. Since discretion is given to each country to define the minimum working age,

there will be variation in what is considered child labor. Since the Conventions and Recommendations are designed to allow countries to determine some of the specifics, those particular, individual definitions should be respected in measuring child labor. However, for comparability across countries, we might also consider a measure with a fixed line of say 15 years. Though it must be kept in mind that even with a uniform definition, what is considered child labor by such an indicator may not be seen or treated as child labor at the level by the specific country.

Indicator 3a

Work by employer status

Definition: Percentage of workers who work for own-family vs. for an external employer.

Rationale: The disaggregation by whether one works for their own family or away from the household is significant because one might think the child is less subject to exploitation or abuse by their parents than due to an outside employer. Of course, some parents are also abusive towards their children, but this is an issue with a pathology quite aside from child labor.

Data requirements: Need questions relating to who the child is employed by, available from the SIMPOC survey.

Breakdowns: gender.

Note: For cases where child works for both a household enterprise and an external employer, should count the child as working for an external employer.

Indicator 3b

Work, by payment status

Definition: Percentage of workers who are paid in cash, vs. in-kind vs. unpaid workers.

Rationale: Important for understanding the employment circumstances of children, namely whether they are unpaid family workers, or whether the work relationship is for cash or non-cash remuneration. Also relevant for understanding role of child labor for household livelihood and subsistence.

Data requirements: Need questions relating to payment status, available from the current SIMPOC survey.

Breakdowns: gender.

Indicator 4

Work by location of employment

Definition: Percentage of child workers who work at home vs. away from home.

Rationale: The place where a child works is important. This is a separate issue from the above indicator on who the child's employer is, since children may work for a family enterprise which is not based within the home. Also, it could be that children work for non-family employers, but work within the household. Distinguishing this will be important for determining the level at which intervention take place, and also for analyzing the impacts of programs. It may be that programs such as those that monitor workplaces or factories for child labor, employers may simply switch to providing home-work, especially for small tasks (ex. stitching footballs) that can be done within the household and need not take place in a factory.

Data requirements: Need questions relating to where the child is employed, only indirectly available from the SIMPOC survey.

Breakdowns: gender; sector.

Indicator 5*Work by sector of employment*

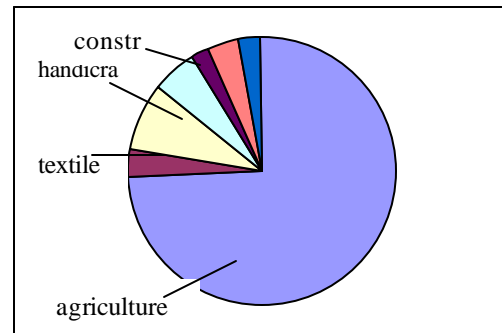
Definition: Percentage of workers in various employment sectors (manufacturing, services, agriculture, construction, handicrafts, textiles, etc.).

Rationale: Typically, agricultural labor (especially for own-family farms) is far and away the most prevalent form of child labor; for example, Ashagrie (1998) reports that 70 percent of all child laborers are employed in agriculture. Further, this disaggregation is the most essential one, since much of agricultural employment may be seasonal, and thus not necessarily interfere with schooling. Further, for targeting programs to combat child labor in particular industries, need to know in which industries or sectors of employment children work.

Data requirements: Need questions relating to sector of employment, by standard ILO sectoral definitions, available from the SIMPOC survey.

Breakdowns: gender.

Note: These data should be presented as a pie chart, showing the total composition of child labor across various sectors.

**Indicator 6***Average hours worked per week*

Definition: Average hours worked per week among child laborers.

Rationale: Hours worked per week are an important measure of the total burden of child labor. Work that is only a few hours a day need not necessarily preclude schooling. For assessing the impact of interventions, it will be useful to look to see if the hours worked per week declined, not just whether the number of child laborers declined.

Data requirements: Need questions relating to total hours worked per week on all activities, available from the SIMPOC survey.

Breakdowns: gender; sector of employment (agriculture, etc.).

Note: should include all hours worked, including domestic work around the home.

Indicator 7*Distribution of hours worked per week*

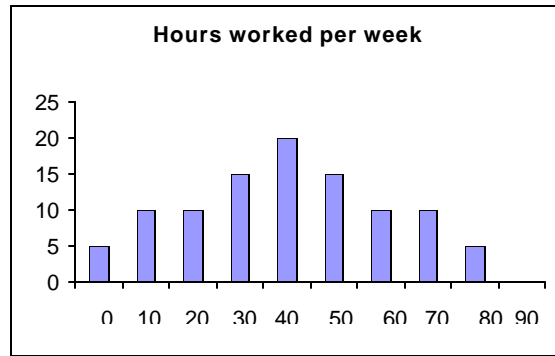
Definition: The distribution of hours worked per week among child laborers.

Rationale: Hours worked per week are an important measure of the total burden of child labor. The distribution provides more information than the simple mean. For assessing impact of interventions, it will be useful to look to see if the hours worked per week declined, not just whether the number of child laborers declined.

Data requirements: Need questions relating to total hours worked per week on all activities, available from the SIMPOC survey.

Breakdowns: gender; sector of employment.

Note: should include all hours worked, including domestic work around the home.



Indicator 8

Average months worked per year

Definition: Average months worked per year among child laborers.

Rationale: Months worked per year are an important measure of the total burden of child labor. Work that is not year-round may not be inconsistent with schooling. For assessing the impact of interventions, it will be useful to look to see if the months worked per year declined, not just whether the number of child laborers declined.

Data requirements: Need questions relating to total months worked per year on all activities, available from the SIMPOC survey.

Breakdowns: gender; sector of employment (agriculture, etc.).

Note: would be ideal to have a finer measure, such as days per year or weeks per year. Also, would be better to have questions relating to whether those months were during the school term; as it stands now, survey only asks about total months.

Schooling Indicators

Indicator 9

Net School Enrollment Ratio

Definition/interpretation: Children enrolled in school as a percentage of the number of children of mandatory schooling age (starting age and compulsory age established at the country level). Gives a measure of extent of participation in primary education among children of the official primary school age.

Rationale/relevance: Child labor is intimately intertwined with schooling. And our concern over child labor stems in part from our concern over the lack of schooling. The indicator is also a good overall measure of the status of education in a given country.

Breakdown: gender; region; urban vs. rural; By currently work vs. not; by currently child laborer vs. not.

Data requirements: Need questions relating to age and whether child is enrolled in school, both available from the SIMPOC survey. Also need information on schooling age within a given country.

Indicator 10*Never Attended School*

Definition: Percentage of all children who have achieved the age for of mandatory attendance of primary school who have never been enrolled in school.

Rationale/relevance: The indicator is also a good overall measure of the status of education in a given country.

Data requirements: The questionnaire already asks about whether the child has ever attended school. We only need to know the schooling age threshold.

Breakdowns: gender; region; urban vs. rural; by whether currently child laborer; by whether currently child worker.

Indicator 11*School Dropout Rate*

Definition: Percentage of all children who are above the age for mandatory attendance of primary school and below the legal school-leaving age, who are not attending school, but have attended school at some point in their lives.

Rationale/relevance: By disaggregating dropout rate by children who work and don't, this indicator speaks to concerns over the impact of child labor on whether the child leaves school. The indicator is also a good overall measure of the status of education in a given country.

Data requirements: Need questions relating to age and whether child is enrolled in school and whether the child ever attended school, all available from the SIMPOC survey. Also need information on schooling age within a given country.

Breakdowns: gender; region; urban vs. rural; by whether currently child laborer; by whether currently child worker.

Indicator 12*Laborer Students*

Definition: Percentage of all children currently enrolled in school who are child laborers.

Rationale: Will reveal how many students also have to work. Gives sense of potential impact, and the 'double burden' some children face. Will also reveal the extent to which child labor and schooling are incompatible.

Data requirements: Need questions relating to age, whether child is enrolled in school, and whether child is a child laborer (as in indicators 2a and 2b above), all available from the SIMPOC survey.

Breakdowns: gender; region; urban vs. rural.

Indicator 13*Student Laborers*

Definition: Percentage of all child laborers who are currently enrolled in school.

Rationale: Will reveal the extent to which child labor and schooling are incompatible.

Data requirements: Need questions relating to age, whether child is enrolled in school, and whether child is a child laborer (as in indicators 2a and 2b above), all available from the SIMPOC survey.

Breakdowns: gender; region; urban vs. rural.

Indicator 14

Idleness Rate

Definition: Percentage of children of schooling age who neither work (economically active) nor attend school (or report they are idle).

Rationale: it is typically assumed that children who are not in school are working. This may not be true, and to use such simple indicators may be misleading. May even be that children are not working, but school costs too much money to be able to afford to send children to school.

Data requirements: Need questions relating to age, whether child is enrolled in school, and whether child is economically active (as in indicators 1a and 1b), all available from the SIMPOC survey. SIMPOC survey instrument also directly asks about whether child is idle.

Breakdowns: gender; region; urban vs. rural.

Indicator Set 2. Correlates and Causes

We next present a set of indicators that speak to causes of child labor. Most are based on the discussion of factors in chapter 2. While one must be cautious in interpreting causality, some simple cross-tabulations are instructive for revealing more about which types of households are most likely to have child laborers, and exploring hypotheses related to some of the possible causes of child labor. This is in some sense a first step towards research. We have some theories as to what effects certain factors will have on child labor. By presenting cross-tabulations, we can explore whether the data are consistent with the hypotheses. But it should be noted that this is only a limited approach. It does not prove causality, and in fact does not account for other factors in a multivariate context. And the interpretation of cross-tabs is often very limited, and too much weight placed on their interpretation is ill advised. This is discussed more in chapter 6.

Indicator 15

Child Labor, by Family Size

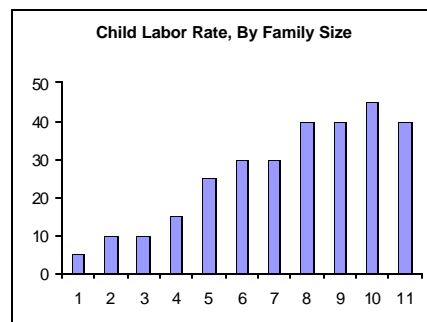
Definition: For a given family size, create a simple tabulation of the percentage of children who are child laborers.

Rationale: Section 2 discussed the role of fertility and family structure on child labor. A priori, our expectations of course are that children from larger households should be more likely to work.

Data requirements: Need information on total family size and whether child laborer (as in indicators 2a and 2b)

Breakdowns: gender; urban/rural.

Note: This indicator is presented as a graph, not a number



Indicator 16*Child Labor, by Gender of Household Head*

Definition: Compare the percentage of children from female headed households who are child laborers with those from male headed households.

Rationale: Section 2 discussed the role of fertility and family structure on child labor. A priori, our expectations of course are that children from female-headed households are more likely to work.

Data requirements: In addition to the above information on child labor, we need to have information about whether the head of household is female.

Breakdowns: gender; urban/rural.

Indicator 17*Child Labor, by Socioeconomic Status*

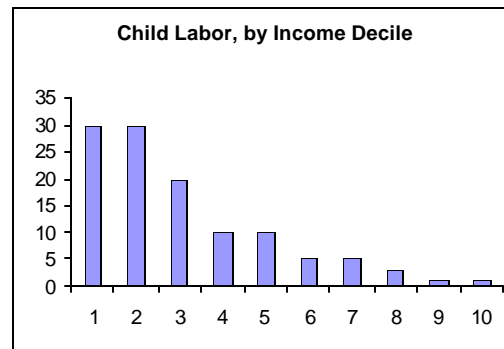
Definition: For various deciles of income or expenditure (or splitting sample into above poverty line or below), create a simple tabulation of the percentage of children who are child laborers.

Rationale: Section 2 discussed that most analyses assume that poverty is the cause of child labor. This indicator allows us to examine how the likelihood of child labor is affected by household resources.

Data requirements: Income or expenditure. Available in SIMPOC survey.

Breakdowns: gender.

Note: This indicator is presented as a graph, not a number

**Indicator 18***Child Labor, by Reason Child Works*

Definition: The percentage distribution of the various reasons why a child is sent to work; (need income; pay debt under contractual arrangement; assist household enterprise; education not suitable; education institution too far).

Rationale: Since the design of programs to combat child labor necessitates understanding the causes of child labor, this question provides some of the most useful information for distinguishing among competing factors or explanations of child labor (though of course in truth it is likely to be a combination of factors that result in child labor). By examining differences by gender for response of 'education not appropriate' might also get at parental attitudes towards education of girls. If parents simply don't want to send their daughters to school, more schools and lower costs will not affect whether girls attend school.

Data requirements: Self-reported reason parent allows child to work. Available in current survey.

Breakdowns: gender.

Indicator Set 3. Consequences of Child Labor

One of the major concerns regarding child labor is the impact it will have on the physical and mental well-being and development in children. Therefore, in analyzing indicators of child labor, we should pay attention to the extent to which child labor leads to adverse outcomes,

regarding health and education in particular. In this way, the seriousness of the child labor problem in a particular country can be assessed.

Indicator 19

Injuries Among Child Laborers

Definition: Among all children who have ever worked, percentage that have been hurt at work. Include those that are not currently working.

Rationale: since it will be difficult to assess working conditions directly, we can explore the seriousness of the child labor problem by how many children are hurt at work. One of the main concerns about child labor is the physical harm it can inflict on children. This will be an important indicator to watch in assessing impact of programs designed to affect children's working conditions.

Data requirements: Child reports of whether hurt at work. Available from SIMPOC survey.

Breakdowns: gender; sector of employment; Age group.

Indicator 20

Serious Injuries Among Child Laborers

Definition: Among all children who have been hurt, what percentage where either the injury resulted in hospitalization or permanently prevented work.

Rationale: Since it will be difficult to assess working conditions directly, find nature of how serious the child labor problem is by how many people get hurt. This will be an important indicator to watch in assessing impact of programs designed to affect children's working conditions.

Data requirements: Need information on injuries and seriousness of them. Available from SIMPOC survey.

Note: However, if children died as a result of their injury, this information will not be available, since the survey does not query parents about children who are no longer alive.

Breakdowns: gender; sector of employment; Age group.

Indicator 21

Work Interference with Schooling

Definition: Among all children who are child laborers, what percentage report that their work interferes with their attending school or their studies.

Rationale: One of the main concerns regarding child labor is that it interferes with schooling. Note that this measure is more encompassing than % of child laborers who attend school because this also asks about whether interferes with studies, even for those currently enrolled.

Data requirements: Current SIMPOC survey asks whether children's work interferes with their school.

Breakdowns: gender; sector of employment; Age group.

Indicator 22

Consequences of eliminating child labor

Definition: Response to the question, what would happen if child stopped working (household living standards decline, household can't afford to live, household business can't run).

Rationale: This question addresses the importance of finding alternate income generating activities for adults in order to make the transition out of child labor less of an income shock to households. Coupled with income share of children. The ideal variable would measure average share of household income earned by children, however since the income variables are not measured extremely accurately, such a ratio would be an extremely noisy measure. The answers to this direct question are probably more reliable. By disaggregating by female head, we can learn whether these households are more dependent on child labor, and thus require particular concern when undertaking measures to reduce or eliminate child work.

Data requirements: Survey currently asks respondents about potential consequences.

Breakdowns: gender of household head.

Indicator Set 4. Contextual Variables

The context or environment can have important consequences for the existence and magnitude of child labor. These indicators are important for understanding which interventions are most needed (chapter 5), for presenting comparative cross-country results on child labor (chapter 6) and for possible use in macroeconomic analyses of the correlates and determinants of child labor at the national level (chapter 6). We present them here only briefly.

I. Population and Human Capital

The level of human capital, incidence of poverty and rates of fertility are likely to be important contextual variables for understanding child labor. All of these quantities relate to the level of resources available to households, as well as the stock of health and education and the general level of economic development, all of which are likely to affect investments in children and child labor. Further, whereas all of the earlier indicators represent quantities at the level of the child and the household, these are at the community or national level.

1. Fertility:

Definition/Rationale: In a context where fertility is very high, it is likely that individual households will not have sufficient resources to invest in the education of all of their children, and will perhaps be more likely to need to rely on child labor to provide for the household. Large families also create large burdens on eldest children, especially girls, who may have to take care of younger children, and such domestic work can impede schooling, and is included in child labor in our definitions above. The typical measures of fertility are the crude birth rate (number of births per 1,000 women of childbearing age) and the total fertility rate, which is the average number of children a woman can be expected to have over the course of her life if current age-specific birth rates were to hold through a woman's life.

Source: The most reliable and highest quality data of this form are typically compiled from fertility surveys, national vital statistics data, and widespread surveys such as the Demographic and Health Surveys (DHS) and World Fertility Surveys (WFS). The data on fertility rates are typically brought together and synthesized in reports such as the United Nations' Human Development Report.

2. Poverty rate and Inequality (gini coefficient, or income share of lowest quintile)

Rationale/Definition: Since poverty is often proffered as the primary cause of child labor, in presenting a country report and for performing cross-country analysis, it is particularly valuable to include a measure of poverty at the national level. Income per capita is simply total national income, divided by the total number of people. However, income is not distributed evenly through the population, so income per capita is a better measure of national wealth, not poverty. Thus, a separate measure of poverty is needed. Typically, each nation constructs its own poverty line (usually on the basis of the cost of a low-cost consumption bundle) and on the basis of annual labor force surveys (or LSMS type surveys) computes what percentage of the population falls below the poverty line (there are also measures that are more sensitive to the depth of poverty, such as the poverty gap measure, which is the proportion of households below the poverty line multiplied by the average income among households below the poverty line). However, since the choice of a poverty line is somewhat arbitrary, and varies substantially from country to country, it is important to have an internationally comparable standard. For this, the most often used indicator is the percentage of the population living in households where income is less than one dollar per person per day, translated into the local currency.

Data Source: The original primary source for these data is typically a nation's own national accounts, though the data are widely reported, for example in the World Bank's *World Development Report*, the United Nations' *Human Development Report*, and the Economist Intelligence Unit Country Reports.

3. Health stock/status

Definition/Rationale: The three most common measures of the national stock of health are life expectancy, infant mortality rates and childhood malnutrition rates. Life expectancy is the average number of years a person can expect to live at birth. Infant mortality is the number of children that die before age 1, per 1,000 live births. Under 5 mortality is similarly used. Childhood malnutrition rates are measures of the percentage of children who are more than two standard deviations from the World Health Organizations' accepted reference median weight-for-height or height-for-age. Both measures indicate inadequate nutrition that can lead to physical health problems and even death.

Data Source: Primary sources for malnutrition are typically derived from the DHS surveys, or LSMS surveys, and in some cases periodic national household surveys. The data are expensive to collect, since they require physical measurements of children's weight and height by trained enumerators. Thus, these surveys are not carried out frequently, so the data are not always available or may be outdated. Data can be found at the DHS web site (www.macroid.com) and are typically considered quite reliable. The data from DHS are also compiled as part of the Human Development Index. Similarly, life expectancy and infant mortality rates, often constructed from vital statistics data, census data and life table analyses, are most easily and readily available in the HDR and WDR.

4. Adult Education levels/stock

Definition/rationale: The current adult population's level or stock of education is likely to influence child labor and investments in children's education. It has been found in numerous studies that the level of education for adults, especially for women, has a positive and large effect on the education of children. Typically, the most readily available data are for literacy rates, separately for men and women.

Data Source: Typically, these are computed from self-reports of literacy obtained from various national, household-level surveys conducted periodically in various countries or as part of the LSMS series. They may not be up-to-date or available. The various results are compiled as part of the HDR.

II. Status of education.

As mentioned in chapter 2, child labor and schooling are likely to be affected by whether households have access to high quality, affordable schools that deliver benefits to children. Many of these measures are contextual, providing information on the overall status of education for the nation as a whole, and should be related to the relevance and quality of education indicators developed by UNESCO (eg., the *Education For All* indicators), and other indicators discussed in Braham and Braham (1999). These data are available in reports and on the web at <http://unesco.stat.unesco.org/>

1. Costs of attending school

Definition/Rationale: In most countries, the costs of attending schooling can be quite high, which can lead to children not being able to attend. Even in cases where there are no school fees or tuition (though school fees do exist in most countries), additional costs include transportation, books, supplies and uniforms.

Data Source: These data are not available in the current SIMPOC survey. The World Bank LSMS surveys ask detailed questions, some data could be obtained for a few specific countries from this source. UNESCO does not have such data available. It may be necessary to contact national level ministries to find this information. Alternatively, questions could be added to the SIMPOC survey, especially if a community-level questionnaire is added (see Chapter 7).

2. Public School Expenditures

Definition: Total expenditure on education, separately for primary and secondary (tertiary is likely to be less relevant for child labor); total expenditure as a share of GDP; expenditure per pupil. These measures indicate how much priority and resources are given to schooling in the country.

Data source: UNESCO has collected and assembled most of this information, available at web site indicated above.

3. School quality

Definition: The most widely used measure of school quality is the pupil-teacher ratio. A low pupil-teacher ratio signifies that children receive more attention than children in larger class sizes. This is not the only measure of school quality, but it is one of the few available.

Data Source: Available at the national level from UNESCO, as above. It might also be possible to conduct community-level surveys in conjunction with the SIMPOC approach to gather more detailed information (on number of classrooms, number of textbooks, composition of floors, walls and ceiling of the physical structure). Collecting the data as part of the SIMPOC surveys would provide more information relevant for research than UNESCO--because school quality varies widely by communities, research could investigate whether children are more likely to work and less likely to attend school where school quality is higher, within a given country.

III. Economy and Economic Environment

Various factors related to the economic environment, poverty, the composition of economic output, capital availability and intensity, and export products are important indicators of the types of economic activity taking place in a country, and are directly related to the potential demand for child labor as outlined below.

1. Income per capita, including recent growth rate, and Inequality

Definition/Rationale: This variable is the primary indicator of overall level of development, wealth and performance of an economy. It is the total national income (available from national accounts data published annually by nearly every country) divided by the total number of people in the country. Such an indicator allows us to relate the incidence of child labor to the overall level of economic development of a country. This will allow us to perform macroeconomic analyses on 'causes' of child labor, for example to explore whether economic growth in itself might lead to the reduction in child labor (see Chapter 6).

It will also be important to present information on inequality. Income per capita only relates to the total income of the nation, divided by the total number of people. As such, it relates to what average income would be if every person had an equal share of income. However, for knowing more about the distribution of resources and the status of the least well-off, it is as important to present information on inequality, such as the gini coefficient or the income share of the lowest decile or quintile.

Data Source: Original primary source is typically a nation's own national accounts, though the data are widely reported, for example in the World Bank's *World Development Report*, (WDR), the United Nations' *Human Development Report*, (HDR), and the Economist Intelligence Unit Country Reports.

2. Output composition

Definition/rationale: Gross Domestic Product is presented in its various components in national accounts, in the following categories: Agriculture; Industry; Services; Construction; Mining. Often, more refined categories are available, for example distinguishing Industry into light manufacturing and heavy manufacturing. The value of these measures is that the composition of output is likely to determine the demand for and existence of child labor. Certain industries typically employ more child labor, such as mining, construction, knit products, etc. By examining output composition across various countries, we can examine how the nature of economic output affects the demand for child labor.

Data Source: Original primary source is typically a nation's own national accounts, though the data are widely reported, for example in the World Bank's *World Development Report* and the Economist Intelligence Unit Country Reports.

3. Capital intensity--manufacturing and agriculture

Definition: As mentioned in chapter 2, the role of technology and availability of capital will affect the demand for child labor. Certain technologies increase the relative productivity of adults more than children and lead to a reduced demand for child labor.

Typical measures of the capital intensity include capital/labor ratios and mechanization indices, typically available for both manufacturing and agriculture.

Data Source: Original primary source is typically a nation's own national accounts, though the data are widely reported, for example in the World Bank's *World Development Report* and the Economist Intelligence Unit Country Reports.

4. Trade openness and engagement

Definition: Many industries that employ child labor (particularly those that have received international attention) export their output. There is concern that increasing international trade and globalization will mean that the desire to export goods and need to be competitive on international markets will lead employers to use more child labor. Several well-publicized cases have also documented multinationals locating in low-income countries and employing child labor. Typical measures we might use for trade are the share of exports in GDP. Measures of the presence of multinationals and foreign investment are typically relevant indicators here as well. Having these data will also allow us to investigate claims that more trade and more multinationals lead to more child labor.

Data Source: Original primary source is typically a nation's own national accounts, though the data are widely reported, for example in the World Bank's *World Development Report* and the Economist Intelligence Unit Country Reports.

IV. Legal environment and Labor Standards

1. Labor Standards, Legislation and Worker's Rights

Definition/Rationale: National legislation relating to workers rights, or child labor in particular, will be influential in determining the level of child labor in a particular country. This will include adoption of international standards, ILO conventions, and engagement in WTO or GATT. These factors do not lend well to simple indicators; in particular, as relates to child labor, there is often for any given country a variety of legislation dealing with child labor, in some cases various pieces of legislation are mutually contradictory. Thus, these issues should not so much be relegated to indicators as more descriptive analysis for each country. Further, the recent ILO report on the measurement of labor standards could be valuable if adopted within this context. Of course, enforcement is likely to be as important as the existence of legislation and standards. However, it is unlikely that much information will be available on enforcement.

Data Sources: NATLEX; ILO databases; measures of labor standards.

2. Compulsory Schooling Laws

Definition/rationale: Whether a child works or goes to school should in principle be influenced by the existence of compulsory school laws. There is great variation across countries in the age for beginning school and earliest age at which one is legally allowed to leave school (in some countries, for example Pakistan, schooling is technically not compulsory, even though the nation espouses a policy of universal education). Again, enforcement is often more of the central issue, and measures of enforcement are unlikely to exist.

Data Sources: UNESCO; national reports available from ministries of education.

V. Institutions, culture, society and context

There are numerous societal norms, beliefs and standards that clearly influence the incidence of child labor. Perceptions of the role of children, perceptions of work as socialization, the role of women and relevance of education for women are just a few examples. For instance, for issues of gender, which might be correlated with the treatment of children, the United Nations publishes a Gender Development and Gender Empowerment Index. This index tries to quantify national levels of gender empowerment, for example by presenting and aggregating data on the percentage of total seats in national legislatures held by women and the percentage of management and professional positions held by women. There are also widely used measures of democratic institutions, such as that published by Freedom House, as well as measures of civil unrest and conflict. However, we feel that because these measures are fairly new and their interpretation and in particular their relation to child labor are still not fully clear, the issues of institutions, culture and context are best left to more qualitative country-level assessments, rather than trying to develop single indicators.

Chapter 5. The Use of Data and Indicators For Policy

The value of the indicators above should be not just to raise awareness and mobilize resources, but also to assist in the process of selecting and implementing policies, programs and interventions ultimately intended to eliminate child labor. We focus on four primary areas which are essential to these efforts. The first step is to clearly articulate the objectives of the intervention. This articulation is of course slightly more refined than simply stating that the goal is to eliminate child labor, and will depend largely on what the adverse consequences of child labor in a particular context appear to be. The second step is to design interventions or determine the best policy or program among all possible options that will help achieve the stated objectives. This begins by relating a set of basic causes of child labor, as revealed by the indicators above and through other basic research, and then matching the most appropriate intervention for that cause. The third key element of policy is to target policies or program interventions. Resources for combating child labor are not limitless, and thus programs should be tailored and targeted towards those who need them the most and in a way that will achieve the most impact. Finally, the full impacts of policies and programs must be assessed and evaluated with regard to their objectives in order to determine the success of the policy in meeting its stated objectives. Such assessments should also consider other impacts of the program, for example on household well-being and schooling, and on the labor market and the economy more generally. Below we discuss the way that the indicators and SIMPOC survey methodology can be used in each of the four domains.

1. Establishing Priorities and Concerns

The first issue in policy and program design is to clearly define objectives. Though the ultimate objective is to promote the best interests of the child, the box on the following page makes it clear that there are many different ideologies, approaches and interpretations that make clearly articulating policy objective necessary. That being said, the ILO has a clearly articulated objective and set of measures intended to eliminate the practice of child labor. The discussion in the box is merely intended to point out potential ambiguities which often arise in debate regarding approaches to child labor.

However, we take it as the priority that the long-run goal is to eliminate child labor, while the short-run goal may include trying to minimize the adverse consequences of child labor, while gradually trying to eliminate it.

Three Overarching Ideologies Regarding Child Labor, Its Causes and Remedies

Viewpoints regarding child labor, its causes and remedies can be fit into three 'camps.' My point in articulating them here is more to frame the issues and debate, rather than to argue for any given case. In fact, there are elements of truth in each case. The goal is to go from these understandings towards effective means that can improve the well-being of children.

1. Non-Interventionists

- ? This viewpoint might argue that there are underlying structural problems of poverty, underdevelopment and high fertility that cause child labor. Child labor is a symptom of these problems, a mechanism through which households cope with poverty. Addressing the symptoms without the root causes will not affect sustainable, lasting impact. Economic growth may be the best way to end child labor. As long as poverty persists, removing children from certain particular industries, though well-intentioned, may push them into even worse forms of child labor, such as prostitution. Further, households depend on the income from child labor, and the loss of this income could have adverse consequences, perhaps as bad as child labor itself in some cases. If poverty is a cause of low school enrollment, forcing children out of work will not mean that they will be able to afford schooling, and in fact may be less able to.
- ? This viewpoint would also claim that international pressure to act against child labor, such as product bans, are more often the voices of powerful, protectionist labor interests within developed nations.
- ? Further, there is little evidence that convention, decree or law will in itself reduce or eliminate child labor. Child labor was eliminated (or reduced to current low levels) in currently wealthy countries at various points over the past century and a half. And much recent empirical historical evidence from the U.S. and Europe suggests that it was not the implementing of minimum age laws that caused this reduction, or that at best they played little part (Brown, Christainsen and Philips 1992, Moehling 1999). Rather, it may have been that child labor was reduced by increased school enrollments (driven perhaps by increasing returns to education), reduced fertility rates, and factors that affected the demand for adult labor relative to child labor, such as technological change that comparatively advanced the productivity of adult workers relative to child workers, agricultural consolidation and mechanization, and changes in industrial organization towards and within factories. The concentration of populations in urban centers also made it possible to create high quality schools, building on economies of scale.
- ? The best way to get children to go to school and out of the factories is by economic incentives. You can change laws, but unless individuals see incentives to going to school and not work, they won't do it. Without economic growth and availability of jobs that reward education, will not send kids to school.
- ? Besides, outright bans don't work, because the larger problem is enforcement.

2. Ban Child Labor

- ? The consequences of child labor are so damaging that only an outright ban is appropriate.
- ? Rather than waiting for economic growth to 'cure' child labor, which could take a long time, increase school enrollment and investments in children, which might actually kick-start the development process.
- ? Perhaps best approach is to enforce school enrollment rather than minimum work age, because it is easier to monitor school attendance rather than check every factory and home for whether children work.
- ? There is evidence that even with economic growth, child labor is often not reduced (Swaminatan 1999).
- ? Child labor is a 'bad equilibrium,' and a ban can become self-enforcing (Basu and Van 1998). This argument would state that if there were a ban on child labor, the resulting decline in total labor supply would lead to an increase in adult wages, and that the corresponding increase in adult wages would mean that households would no longer want to send their children to work.
- ? Further, there is evidence that compulsory schooling laws did have an effect in the U.S. on increasing school enrollment rates, and may have played some role in the long-term decline of child labor (Margo and Aldrich 1996).

3. Long-Run, Eliminate Child Labor. Short-Run, Minimize Adverse Impacts of Child Labor

- ? There are underlying structural problems that cause labor.
- ? However, the consequences are sufficiently dire, especially for the worst forms of child labor, that it is worth trying to reduce it, but doing so in a way that minimizes the impacts of the lost income.
- ? Focus on improving workplace conditions, reducing injuries and hours, allowing children to combine work with schooling, improve school quality and encourage school attendance, and attempt to stimulate adult employment to minimize income loss to households, while working on policies to ultimately reduce and eliminate child labor altogether.

The short-run objectives then are to improve working conditions and reduce both injuries and the severity of injuries in the workplace, reduce hours of work, increase school attendance among workers, and move workers out of the workplace, without imposing too much of a financial hardship on the families. The indicators listed in Indicator Set 3 above can be a valuable source of providing information about the relative significance of these various factors, by showing the extent to which injuries are common in the workplace, and the extent to which child workers also attend school. In this way, the most urgent needs, based on the most dire consequences in a given area, can be addressed with greatest priority. For example, for a given context or a given region, it may be that working conditions are relatively safe, though the total time burden of work is excessive and children do not attend school. In this case, priority should be given to increasing school enrollment rather than improving work conditions. However, if the rate of injury and exposure to hazards is very high, it may be that priority should be given to improving workplace conditions.

The indicators can also give some information regarding the relative importance of ending child labor versus trying to minimize the consequences of reducing child labor. If few households report that they would be significantly worse off if the child did not work, then efforts to remove children from work should be emphasized. If on the other hand most households report that children are a significant source of income, programs should emphasize improving working conditions and school enrollment of children, rather than removing them altogether from the workplace in the short run.

In general, it is not always the case that there is one clear priority or that objectives compete or conflict. However, by relying on the indicators that present the consequences of child labor, a better sense of the specific type of intervention most appropriate to the currently most urgent needs for the particular context can be obtained.

2. Policy area identification, choice of policy instruments

Perhaps the single most important dimension to be considered in treating and combating child labor is how to design programs, policies and interventions to combat child labor, or which among a range of policy options are most appropriate for the given situation and priorities. It is certainly well beyond the scope of the present report to recommend specific policies. Further, the ILO has well articulated goals and objectives relating to child labor. The purpose here is to simply demonstrate how key indicators of child labor can be used as part of those efforts.

Of course, it is unlikely that any one given intervention on its own will be sufficient. However, when choosing a variety of instruments, the relative importance of the components is a significant policy variable, one which can also be informed by examination of key indicators that reveal which among the wide variety of factors which might cause child labor are most relevant in

a given context. Then, policies can be designed to attach those factors most directly. Table 3 provides a useful part of this strategy. It provides a link between a selected list of causes of child labor, how these various causes can be identified through specific indicators in the SIMPOC survey, and what the particular intervention tailored to that specific cause would be.

For example, the school environment can be an important factor affecting child labor (see the first 4 rows of table 3). Parents may either be unable or unwilling to send their children to school. It then becomes important to identify through the use of indicators why, among many possible reasons, this is so. So for example, it could be that physical access is the main problem - this should appear in indicator 18, where households respond to whether a child works because the nearest educational institution is too far. If this is so, then building more schools, closer to centers where there is a great deal of child labor, could prove to be the most important intervention. It may, however, instead be that schooling is not seen as relevant, since it may not provide useful skills (in fact, in many developing countries, the school systems and curricula are still shaped by colonial patterns, which may not provide format or content most appropriate for these settings); it may be that parents simply don't want their children to get education (especially girls, but also boys if they would rather have their children take over the family farm or business). If so, again indicator 18 would tell use that households find schooling inappropriate. In this case, one could either consider curriculum reform to make the schooling experience more locally relevant and more based on the acquisition of practical and vocational skills. Or, it may be that information and advocacy programs are required to persuade parents that schooling is valuable and relevant, even for girls. It may also be that school quality is poor, and thus delivers little value. This is where the indicators of school quality (spending per pupil, pupil-teacher ratio) in Indicator Set 4 would be most informative. And again, the policy intervention here is quite different from the others, since promoting public school expenditures and improvements in school quality are most important.

Note overall that it becomes clear here that adding a few more questions to the SIMPOC survey relating to education and causes of child labor could prove extremely valuable. Each reason, factor or cause of child labor leads to drastically different policy priorities. Thus the indicators are important for policy choice, and as much detail in the survey and basic research into the various causes of child labor is of utmost priority.

Overall, aside from education, Indicator 18 provides the most direct, useful information on why children work, will be valuable in making some determinations as to root causes here. In addition, contextual indicators relating to goals and aspirations for children, both at the household and community level would prove valuable here. Aside from that, creating cross-tabulations, as the indicators in Indicator Set 2 above, will be valuable. Cross-tabulations and regression can suggest whether children are more likely to work if schools are hard to access, costly, not relevant or of poor quality as above; or whether children are more likely to work if come from larger

families; or whether children are more likely to work if they had an economic shock such as the illness or death of a parent, or if the head of household is a woman, etc. All of these cross-tabulations provide suggestive evidence of possible 'causes' or correlations. But, there are of course limits to inference. As any elementary course in statistics repeatedly emphasizes, correlation does not prove causality. Plus, there are other factors to control for that may be correlated with the factor you are looking at. Careful research must consider other possible theories, and how they can be distinguished empirically. On this count, there is a need for more basic theoretical and empirical research, both within and outside the SIMPOC instrument. The previous chapter also pointed to more variables and questions which could be added to the survey to address issues of causes of child labor. Again, additional effort on the survey in this particular area could prove to be of highest priority.

And as alluded to above, the choice of policy will also depend on the impacts of the programs, on children themselves, their families, and the economy as a whole. The goal is to minimize the adverse effects while not causing disruption in other areas. This requires information on household dependency on children's earnings (captured by indicator 22 above), as well as research into the impacts of the loss of child labor on adult wages, on the competitiveness and survival of firms, and the larger macroeconomic impact. These questions can't be addressed exclusively within the SIMPOC framework, but rather require additional measures and studies (see chapter 7). For instance, to know more about the impact of programs to reduce child labor on the labor market more generally, we should use ILO measures of wages. For instance, it may be that when child labor is reduced, adult wages increase, so that there may be less of a desire for child labor, since incomes will have risen).

3. Policy Targeting

The basic indicators of child labor presented above can be disaggregated at regional levels (provided the sampling frame permits such inference, i.e., sampling is stratified by regions) to find where child labor is most prevalent, especially in its most dangerous forms rather than the simple incidence (indicator set 2 above: injuries and interference with schooling), whether there are gender differences, and in which industries and occupations children are most likely to work. There are many dimensions along which targeting can take place, and the indicators, especially when disaggregated as suggested, are designed to identify these important cleavages:

- ? *Regional*: geographic within countries.
- ? *Personal or group characteristics*: ethnicity, female headed households, socioeconomic status
- ? *Type of work*: industries and occupations which children most frequently report

The data of course will not allow very fine targeting: we can't identify communities or households, since privacy protects the latter, and the lack of representative data at the community level precludes the former. However, once more 'coarse' targeting has established priorities, more in-depth qualitative assessment mechanisms and investigations can be used to focus in and pinpoint communities at a finer level. The same holds for employers: the survey will not allow the identification of specific employers, but once the indicators establish regions and industries, there can be follow-up investigations and assessments at a finer level.

The goal of policy, programs and interventions is to allocate resources to combat child labor in a way that will have the greatest impact, especially by targeting areas which contain the most hazardous forms of child labor. This is one domain in which the existing surveys should be paired with companion RA surveys in host countries at the same time as the SIMPOC surveys. While there may be more child labor in rural areas, there may be more 'invisible' forms in urban areas (for example, prostitution), which are more hazardous and less likely to be detected by the current survey instrument. Targeting could be misguided if it is based solely on measurable forms of child labor. It is important to make sure that targeting is guided not by the amount or rate of child labor, but taking severity and consequences into consideration.

4. Policy Impact Assessment

Once policies are selected, targeted and put in place, it is important to provide an assessment of the impact of these programs and policies so that it might be ascertained whether they are effective; if so, what impact they are having, and if not, what went wrong, and what should be done differently elsewhere.

There are several prominent forms of impact assessment studies in social science research, each with particular advantages and disadvantages related to cost, methodology and ability to infer impact. We focus on the option that is most appropriate and relevant for ILO/IPEC in dealing with child labor (though we summarize a powerful, yet expensive, alternative in the box at the end of this chapter). The general methodology is to enact a series of measures in a particular year and perhaps for a particular target group and use surveys from before and after the intervention to assess the impact, based on changes in the relevant indicators. The most fundamental challenge is to attempt to infer from changes in key indicators the extent to which the impact on child labor was caused by the specific interventions, as well as explore what other effects occurred. In more detail, the steps are as follows:

1. Assess whether the program was implemented effectively as planned. This relies not so much on the child labor or contextual indicators as discussed in the previous chapters, but more on

making sure that the policy was actually implemented as had been designed. There are many potential reasons why the program may not have been implemented correctly, or why adjustments were undertaken. But before one can infer the impact of a particular program on an outcome, one needs to make sure the program was implemented as designed, or to at least understand what exactly did take place. The relevant program efficiency measures will of course depend on the specific intervention planned. For instance, if the goal was to construct schools, the program implementation success indicator is the number of schools built relative to the planned number, or the number of children enrolled, as well as issues of cost and efficiency of implementation. Again, these indicators will be specific to the intervention, and thus can't be elaborated on more here.

2. Assess whether the desired consequences were realized. In stating and articulating objectives, as in policy area 1, there were specific outcomes intended, such as to reduce workplace injuries or average hours worked by a specified amount, or increase school enrollment by a fixed amount. Here, we examine the trends in child labor consequence and incidence indicators above (Indicator sets 1 and 2). We can examine whether child labor was reduced, or at least whether its growth was curtailed. Quite simply, then, the relevant measures here will be derived from the appropriate child labor indicators, measured in surveys both before and after interventions. Relevant changes in key indicators will involve: changes in child labor rates (note that rates might be more relevant an indicator than numbers: over the course of several years for program implementation and assessment, the demographic structure may be such that there are more total children of the relevant age group due to increasing fertility rates: thus it should not be seen as a program failure if the total number of child workers increases, as long as child labor rate declines. The same goes for declines in fertility rates that lead to a 'false reduction' in the number of child laborers).

Other key indicators to examine for changes include: reductions in the incidence of injuries (serious and minor) among working children, and increases in school enrollment rates. In almost every case, the outcome indicator will be the change in the relevant variable articulated under the policy objective in policy area 1 above. percentage of child laborers enrolled in school; percentage of all children enrolled in school; and average work hours and conditions.

There should be particular care when policies and interventions were finely targeted: for example, the intervention may have targeted specific industries or regions. If so, one can examine the child labor indicator changes in those specific areas relative to changes in areas/industries that were not targeted. But in making any assessment about program impact, one must be careful to examine what happened in other industries or regions that may not have had interventions. For instance, it might be that while the glass bead industry was targeted for intervention and indeed after the program employment there declined, one must also investigate

whether employment increased in another industry (the same holds for regionally targeted interventions). One wants to rule out that the program did not simply 'displace' children from one form of labor (or region) to another. Thus one should examine overall rates of employment for decline as well as number of children. It might also be possible in designing a questionnaire to ask child workers about whether they had a job previous to their current one, from which such switching of labor across industries can be detected. More of a concern of course is that children may switch into more 'hidden' forms of child labor which are not detected by our survey methodology. Only qualitative assessments from operatives in the field, or through small scale Rapid Assessment Surveys can be used to accomplish this.

Note that the indicators of program success are quite distinct from those just discussed; in the previous point, it was relevant whether the program was successfully implemented, whereas here we are focused on the success in achieving outcomes. It may be that the goal was to increase school enrollment by building more schools. While the target number of schools may have been built, there is no guarantee that enrollment will increase or child labor will decrease. As stated numerous times above, there are many reasons why children work and do not attend school.

If the program goals (ex. building schools) were met, yet the outcome variables did not change as predicted, then one must question the assumed link between the cause and effect, or recognize that there may be other limiting factors involved. In other words, the condition may be necessary to reduce child labor, but may not be sufficient on its own without other conditions.

3. Assess the extent to which the designed program actually 'caused' those effects. This part of the assessment is the most challenging. It does not rely on the indicators of child labor as much as it involves argument and inference, including that based on qualitative data. It is typically not possible to establish without a doubt that a program caused all of the observed effects. In providing an impact assessment, the most important issue to be dealt with is what is known as the fundamental problem of attribution. Much work in the empirical social sciences has focused on the problem of inference in the evaluation of programs and policies. The ideal analogy is the controlled experiment in physical sciences or medicine. Individuals are randomly assigned to one (and only one) well-defined 'treatment.' We then examine the differences in the outcomes of 'treatment' and 'control' groups. If subjects were truly randomized, there should be no difference between them along any critical dimensions that could affect outcomes, any differences observed in outcomes is due to the treatment. Even more ideal is the physical sciences like chemistry, biology or physics, where proper 'controlled' experiments take place: we apply some treatment or procedure, and hold all other factors the same for two specimens, whether it be temperature, pressure or any other factor that could affect the outcome of interest.

However, in the social sciences, we rarely approach this ideal, and thus compromises are necessary. For instance, if child labor declined before and after an intervention, there may have been so many other factors that shifted that also affect child labor that you can't be certain exactly that only the program or intervention caused all the change in the outcome indicators. And even if certain child labor indicators did not decline at all or perhaps even increased slightly, one can not infer that the program was a failure, because maybe there would have been an even more dramatic increase if there had been no program. The problem is that it is impossible to know what would have happened if there had been no program (the 'counterfactual'). If certain regions or industries were targeted and others were not, one could try to infer at causality a bit more by showing that child labor declined relatively more in a given targeted region or industry than in others. However, one must again be concerned with the issues of child labor displacement into other industries or regions. A further problem of attribution is that often it is not just one program or policy which are put in place, but a series of them, and thus we can't know which particular aspect worked most effectively. Given this general frustration, it is no wonder that more and more programs are starting to apply the 'experimental' approach discussed in the box at the end of this chapter. For large U.S. programs such as welfare or job training, since so much money is spent and the outcomes are so important, there is the increasing use of randomly assigning some individuals to particular programs, and not giving them to others, in an attempt to approach the controlled experiment analogy as much as possible.

Thus, the fundamental problem of inference that will be encountered in assessing ILO/IPEC interventions is that one can not know whether and how child labor would have changed in the absence of the intervention. Other macroeconomic factors or trends may have caused changes in child labor rates that either decreased child labor rates even in the absence of the program (and thus we overstate program effects), or increase child labor rates (in which case our assessment of the effectiveness of the program is understated). One must also examine other contextual factors to explore whether they changed as well. If they did not, one is more convinced that the program itself had an impact. For instance, if economic growth increased dramatically, one would be less convinced that the program explains all of the reduction in child labor, whereas if it was relatively unchanged, we rule out the possibility that income and macroeconomic conditions lead to the reduction in child labor rather than the intervention.

The primary approach is to examine the outcomes, and link them as much to the interventions by focusing on indicators specific to those interventions (i.e., if the intervention was to build schools, one can examine whether school enrollment rates increased), assuming all other contextual and relevant factors were constant (or examine what changes did take place). It is also possible to tailor questions on the before and after surveys to specifically measure interaction and impact of assessments (such as, does the child now attend school because one was built that could accommodate work. Do you attend an ILO/IPEC school? Did you attend one

before? Did the income grant provided make it possible to attend school, etc.). The particular questions will depend on the specific intervention undertaken.

Aside from overall changes within the country, there should be comparisons to changes in other countries, both with and without ILO/IPEC or other interventions (see next chapter on thematic research outputs for more). The basic idea here is to use regression analysis to look at the change in child labor indicators for countries that adopted initiatives, vs. those that did not. One can try to control for differences across countries (either by including other contextual variables in a multiple regression, or by using 'fixed-effects' if multiple observations for countries are available). Of course, there is still always concern that countries that adopt programs are not like those that don't (or more specifically that they are changing differentially), and there is still the concern that if multiple programs are put in place, it is difficult to assess which particular components achieved the most impact.

4. Determine whether effects other than those predicted took place.

As mentioned above, there is always the concern that an intervention designed to reduce child labor in a particular industry or region may lead to unintended consequences, or perhaps will lead simply to displacement. The use of indicators on overall child labor, and examining whether the rates increased in non-targeted regions or industries, as well as qualitative RAS's will allow us to explore these possibilities. It will also be important to track the indicator for where children work, i.e., what % employed within the home, to make sure work is not just simply moving out of factories and into the home (informalization or outsourcing to homework), thus giving us misleading estimates of impacts and reductions.

In designing programs aimed towards the elimination of child labor, attention must also be paid to the consequences of such elimination for household well-being, including health, nutrition and education. Given the indicators available on what households report would happen if the child stopped working, one should be able to predict the consequences of what would happen through the reduction of child labor if there was no attempt to provide income support to affected households. The data can help give a sense of how important the child's income is to the household, and thus the impact of the elimination of child labor on household well-being. But we don't know whether households are able to respond by having other members work more, or whether an elimination of child labor will increase adult wages, reducing some of the need for child labor. Examining changes in indicators of socioeconomic status (as provided by the survey: income and expenditure) before and after interventions will allow us to explore these issues.

5. Other concerns and issues in assessment

One concern that remains is the long-term impact. Programs take a long time to have their full effect. The effects may increase over time as more people learn about and take

advantage of the program, or as enforcement or involvement improves. Alternatively, programs may have a short-run effect that may dissipate in the long-run.

6. Summary Relevance of Indicators for Policy

The following table summarizes the findings above regarding basic needs for designing policy, what is currently feasible under the SIMPOC survey approach, and what else may be undertaken to bridge the gap between 'what we have' and 'what we need,' both through additions to SIMPOC's current survey methodology as well as incorporating information and data from outside of this approach.

Policy Area	What is needed	What we have	Additional needs
Establishing objectives and priorities	? Information regarding relative importance of various adverse consequences of child labor in a particular setting.	? Indicators providing information on consequences, namely injury and schooling.	? RA surveys to identify invisible forms not available in SIMPOC ? More questions on SIMPOC surveys to get at other dangers and consequences.
Choice of Policy Instrument	? Understand the causes of child labor. Basic research needed.	? Can run regressions and look at cross-tabs ? Some direct information on causes from questions on survey. ? Some information on contextual 'factors.' ? Can perform cross-country comparative analyses as more data become available. This will allow us to identify how contextual factors affect child labor.	? Employer and industry studies to determine demand for child labor, role of technology, etc. ? More survey information on household characteristics ? More survey information on communities.
Targeting	? Indicators of where child labor is concentrated, by region, by industry. ? But must focus on most dangerous forms.	? Basic indicators of child labor, with group, gender, regional, sectoral breakdowns. ? Contextual Indicators.	? RA surveys to identify invisible forms not available in SIMPOC ? More questions on SIMPOC surveys to get at other dangers and consequences.
Impact Assessment	? Surveys collected before and after an intervention, with an appropriate assessment methodology.	? Look at changes in key indicators over time with repeated surveys. More difficult is to infer whether program itself caused the changes, or which aspects of programs work best.	? Longitudinal surveys ? Surveys teamed up with programs to enhance evaluation and monitoring. ? More questions tailored specifically to exposure to intervention or program ? Policy experiments?

Controlled, Scientific Studies for Impact Assessment

The largest improvement in the analysis of social policy is the use of randomized trials and experiments, akin to methods in the physical sciences. The goal is to use control groups and randomization to assess program effects. In the physical sciences, for example medicine, one creates a completely objective environment and studies the impact of some 'treatment' on a group of individuals. They rely on control groups, and randomly assign individuals to either the treatment or control group. Thus, the effect of the treatment is, say, the greater likelihood of survival among those who received the treatment relative to those who did not. The core principle is that assignment to one of the two groups is random, so there is no reason to expect individuals in one group were healthier or more receptive to the treatment than the others. Therefore any differential survival rate, say, must be due to the impact of the treatment, and nothing else.

This method has generated increasing use in the social sciences, especially in evaluating job training programs and the effects on welfare and employment. Or, for example, suppose we want to evaluate the impact of providing information on the use of contraceptives to reduce sexually transmitted diseases on the use of contraceptives in low-income countries. The naïve approach to estimation would be to say that contraceptive programs were introduced in, say 1979, and look at survey-based estimates of the percentage of couples using contraceptives in 1978 compared to 1980. However, this approach would ignore the fact that we can't be certain that it was the program that caused the change. Perhaps rates of use were increasing due to changes in attitudes or access unrelated to the programs.

Alternatively we might look at evidence from micro-level surveys on contraceptive use of women who received the information at the clinic. If they had higher subsequent use than the general population, one might be inclined to assume that the information program caused that impact. However, the women who choose to go to health clinics might be different than those who don't go, and they might have had higher rates of usage anyway.

So one approach might be to carry out a large survey, and randomly assign regions to receive contraceptive services. Then, one could perform a so-called 'difference-in-difference' approach to estimating the effect of the program. In other words, one could look at the change in the percentage of women in villages that received the services who are using contraceptives before the program and after the program, relative to the change among women in villages not receiving the program. Under this approach, we make only the assumption that had the program not been put in place, there would have been no differential change in the percentage of women using contraceptives in the two villages. If the villages were chosen randomly, there is no reason to expect otherwise. The randomization ensures that there are no observable or unobservable differences between women or villages that would affect levels or changes in contraceptive use, and thus ensures that our program effects are estimated properly. Though of course, in practice, we estimate regressions and include control variables measuring observable characteristics of the women and villages in which they live. Note that any macro-level changes that would positively or negatively affect all women are controlled for, since we are asking whether women in the treatment groups changed by more than those in the control group; positive aggregate changes for both groups would be subtracted out.

Note that while this methods yields the most convincing estimates, the data demands and costs of assessment are high. We need surveys carried out before and after the program is in place (though, we need not follow the same women over time, as long as we use representative sampling for the villages). It also requires that programs, when being extended throughout the country, say, are done so in a random way. While other methods that do not rely on randomization can also be used, the impact can truly be assessed as convincingly_

Chapter 6. Proposed Outputs

There are several research outputs which could be created using the data which become available. They range from basic country reports, for countries where there is only one child labor survey available, to a more wide-ranging report detailing child labor in many countries, including trends and changes over time, and providing comparative analyses and basic research investigating causes of child labor.

1. Country Profiles/Case Studies

The most natural output for each country would be a report detailing the child labor situation. This is more relevant for countries for which there is only one survey available, and the goal is to provide a snapshot image and depiction of the current situation of child labor in the country at the time of the survey. The reports should also contain relevant background information on the country and context, including issues of population and human capital, economic structure and indicators, legal framework and institutions, as discussed in the indicators in chapter 4. While this additional information is available from a number of sources, ILO country reports should incorporate this information in order to present a more self-sufficient and easy to understand report. Further, beyond presentation of basic indicators or tabular results, there should be interpretation, comment and analysis. A framework for the basic report is presented in the box on the next page.

We could also use the data collected to create a profile of the “typical working child,” i.e., whether they are more likely to be rural, male, little education, parents have little education, come from a large household, etc. This could also be seen as an analysis of “risk factors.” These profiles will likely differ across countries. The profiles could also be supplemented using case studies of actual child workers in the target country, obtained through in-depth interviews with a few children, or as part of a Rapid Assessment Survey.

These reports should also contain a section on the nature of the data, from sample design, to stratification, sample size, response rate and validity checks. There should also be a general assessment of data quality. Alternatively, there should be brief mention of sampling and data quality with a reference to a more complete source. These are essential facts for any users of the reports to determine the adequacy of the estimates for their purposes, and also will ensure that the data and methodology are open to public scrutiny.

For the actual presentation of the indicators, there are several possibilities. The first would be a simple table listing the indicators in the order discussed above and in the earlier chapter on indicators. We could also make use of more visual presentations, such as bar graphs or a visual measures such as those presented in appendix 1, figures 1 and 2, that allow for a flexible representation of the data along many dimensions.

Box X. Country Profile

A. Population and human capital

Rationale: To understand current child labor, need to consider poverty, health and human development of current population.

Data Sources: World Development Report, Economist Intelligence Unit, UNESCO.

Indicators:

- ? Size of population; age distribution; urban v. rural distribution. Total Fertility Rate.
- ? Life expectancy
- ? Average education levels of adults.
- ? Poverty Rates (internationally comparable poverty line, ex. \$1 per person per day as suggested by World Bank); Gini coefficient (measure of inequality). Include time trends.

B. Economic Profile:

Rationale: Can't consider child labor outside of the economic environment and context in which it takes place. Including adult employment rates, and engagement in international trade.

Data Sources: World Development Report, International Financial Statistics, etc.

Indicators:

- ? GNP per capita (including trends over time. By sector (agriculture, manufacturing, mining...))
- ? Employment (labor force participation and employment rates (male and female), by sector.
- ? Exports, trade
- ? Capital intensity of industry and agriculture

C. Legal framework

Rationale: Every nation has different legal code regarding schooling and work. Can examine whether a given country has adopted national legislation to be consistent with ILO/UN conventions which have they have signed. Also, can examine whether national legislation is 'internally consistent,' for example whether compulsory schooling laws are in harmony with minimum work age.

Source: ILO NATLEX database (updated).

Indicators:

- ? Ratified various ILO/UN conventions regarding children? What year?
- ? National legislation regarding minimum working age, and compulsory schooling. This may consist more of a descriptive analysis rather than as simple indicators, since working age legislation may be fragmentary and contain exemptions and conditions.
- ? Enforcement mechanisms regarding law

D. Child Labor Situation

- ? Current Status. Profile of indicators as in Chapter 4 above

E. Rapid Assessment

Rationale: The problem of child labor is extremely complex, and much is lost when we try to capture it through a limited, standardized survey and reduce it to a few indicators. RA can provide a more vivid depiction of specific individual cases.

- ? Working conditions
- ? Situation regarding the 'invisible' and worst forms of child labor (bonded, slavery, commercial sex trade, drugs, trafficking, child soldiers, etc.). Case studies/profiles of particular children.

F. Current Action and Programs

- ? National Government
- ? ILO/IPEC
- ? International (ex., subject to U.S. trade restrictions, etc)

G. Analysis of Child Labor, Impact Assessment

- ? What has happened since IPEC intervention--see indicators for Impact Assessment in previous chapter.
- ? Projections, based on assessment of impact of programs, additional programs being considered, and projected changes in contextual factors related to child labor.

H. Proposed Strategy for the Future

- ? Highlight target areas
- ? Strength of Effort
- ? Strategy for eventual elimination of child labor, possibly link to strategy or program document for that country.

2. Global Child Labor Report

SIMPOC survey efforts are planned or underway for over 40 countries. As the data from several countries become available, IPEC should assemble collections of reports either for all countries available, or perhaps separately for regions, for example Latin America, South Asia, Sub-Saharan Africa. Comparative analysis and examination for common trends across countries should be probed.

A report presenting all the indicators above could be prepared for each country for which data are available. But since there is much more detail and rich context beyond what can be distilled in simple indicators, the series of measures and indicators could also be supplement with a series of case studies, working in the host countries with academics, government, NGO's, etc. One possible format would be a book, with chapters on each country, or a few countries in-depth. There would be a one or two page summary on the indicators, child labor situation, and context for each country. These reports could also be accompanied by other analyses and research outputs, as follows:

Global Child Labor Report

Chapter 1. Introduction to child labor

Chapter 2. Methodology

Chapter 3. Indicators of Child labor for all countries with data available

Indicators as specified in Chapter 2

Chapter 4. Country Profiles

Chapter 5. Patterns and Cross-tabulations

Chapter 6. Regional Profiles

Chapter 7. Thematic profiles

Example: Trade, globalization and child labor

Example: Fertility and child labor

Example: ILO interventions, and summary of impact assessments for various countries

Chapter 8. Microeconomic Analyses of causes of child labor

Chapter 9. Macroeconomic (Cross-country) Regression Analysis

Chapter 10. Projections for the Future

Chapter 11. Conclusions, steps forward

Such a report would be a powerful tool for policy makers, researchers and students and useful for advocacy and resource mobilization. It would present basic research on the causes and consequences of child labor, as well as share country experiences with programs and interventions. While not advocating that this specific product, I will discuss some of the various chapter components below, since each is a valuable output even if not collected together.

A. Table comparing the child labor situation in all countries (chapter 3)

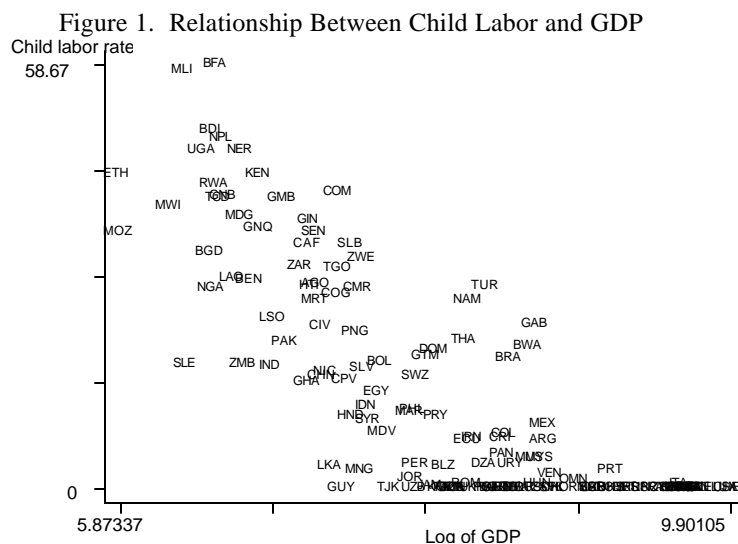
For a cross-country comparison, we would want to distill the set of possible indicators of child labor down to the smallest number of most meaningful indicators. Specifically, we might want to focus on the percentage of children who work (indicator 1B), percentage who are child laborers (indicator 2B), average hours worked (Indicator 6), the percentage who are working excessive hours (Indicator 7), % of children who have been hurt at work (Indicator 19), percentage who have been seriously hurt (Indicator 20), percent of all children enrolled in school (Indicator 9), and the percent of child laborers enrolled in school (Indicator 13). The figures should be given separately for boys and girls. These figures will present simple, comparative measures of the magnitude of all child labor, as well as the ‘seriousness’ of the consequences regarding the impact on children’s well-being. See table 4 in the appendix for a specimen.

B. Country Profiles

There would also be a great value in condensing down the information from a stand-alone country report, as in 1 above. Using a common format and style of presentation would create a powerful reference tool that could be used to compare the situation of child labor across countries quickly and easily. Appendix 2 provides an example format for this type of profile.

C. Patterns Across Countries and Thematic Explorations

Once the indicators and studies are complete, we could explore various themes related to causes or consequences of child labor at the national level, as a precursor towards multivariate analysis. As an example, using ILO estimates for various countries in 1990, Figure 1 below shows that there is a strong correlation between income and child labor across countries. Each three letter point in the diagram represents a country’s income and rate of child labor (ex. BFA is Burkina Faso, MLI is Mali, etc.). It is clear that countries with lower incomes have more child labor, and the strength, clarity and shape of the relationship are quite striking.

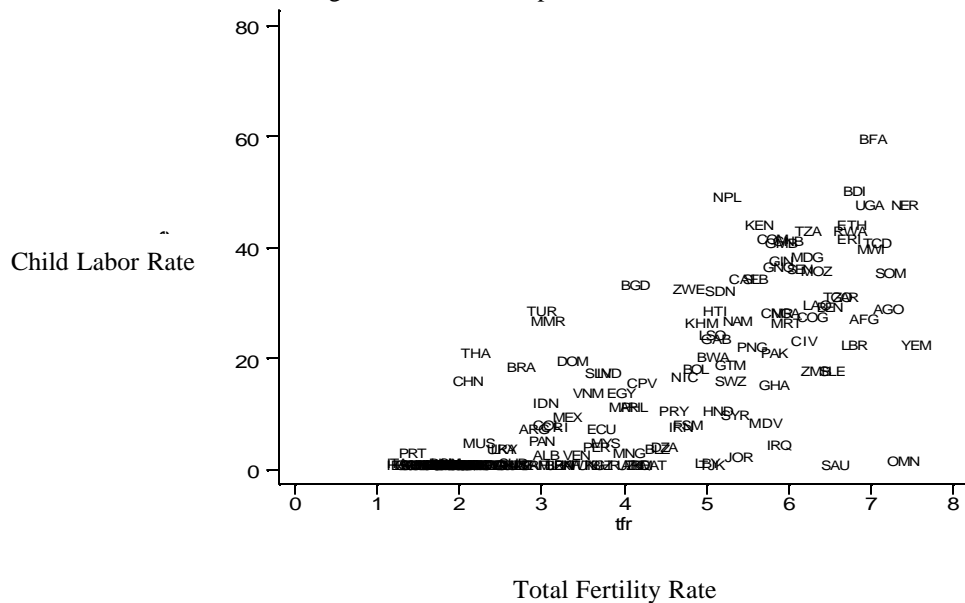


Source: Author’s analysis, using ILO data, and GDP data from WDR.

While this result is perhaps not surprising, similar analyses on the relationship between fertility rates, average education levels and other factors, especially in a multivariate regression context, could shed some light on common trends and patterns across countries.

As another example, Figure 2 below shows that there is a clear relationship between child labor rates and Total Fertility Rates (TFR is roughly the average number of children a woman in the country can be expected to have).

Figure 2. Relationship Between Child Labor and Total Fertility Rate

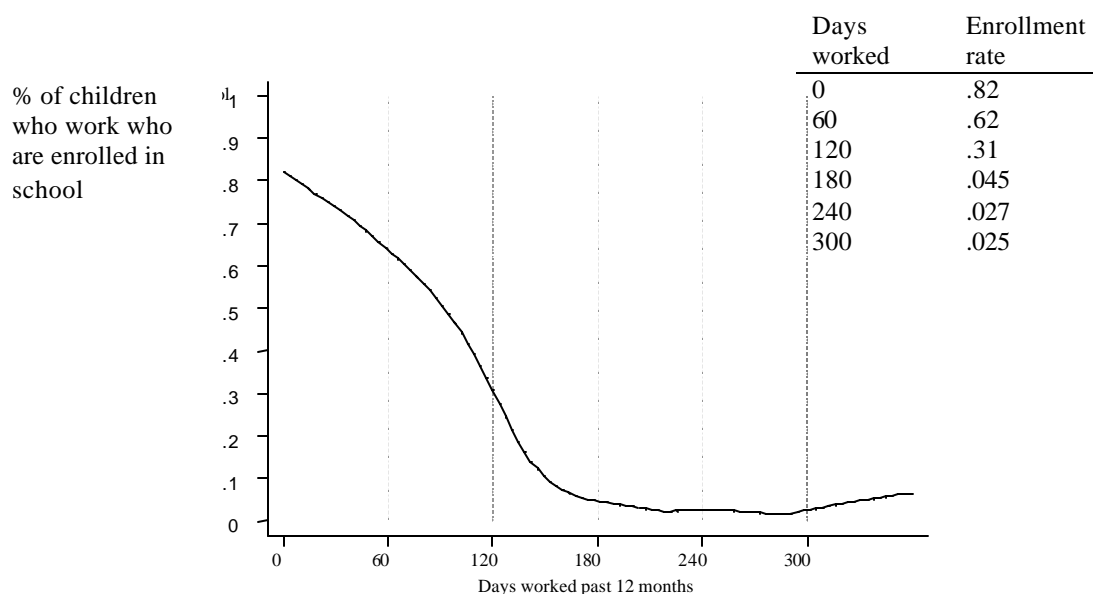


And these types of analyses raise interesting questions. For example, in figure 1 on the previous page no country with a GDP per capita of more than X has any child labor. But the graphical representation also demonstrates interesting questions, pertaining to the ‘odd cases’: for example, why does a country like Portugal (PRT in figure 1) have moderate child labor despite its high income? Or, why does a country like Sierra Leone (SLE) have so little child labor despite the low GDP per capita? Or, in figure 2, why does a country like Thailand (THA) with such a low TFR also have so much child labor, or why does a country like Saudi Arabia (SAU) have so little child labor despite the high TFR? These questions for ‘unusual’ cases lead us to explore what contextual, environmental or policy variables are different that make these cases special, so that they seem contrary to the general pattern of child labor we would expect with regard to various country attributes.

The country-level data could also be used to explore particular themes of interest. For example, an important issue to be explored is the extent to which work can be combined with school enrollment. For each country, we could calculate the percentage of children who work, say, 0-5 hours a week who are enrolled in school, 6-10 hours a week, who are also enrolled in school, and so on. The same could be done for days per year worked, since eventually more work must interfere with schooling. The diagram below provides an example of the valuable

types of analysis which could be performed with the data, using an example from household-level data from the Pakistan LSMS. This figure calculates the percentage of children who are enrolled in school for various amounts of days worked per year. A similar figure could be produced for hours per week. We have also included a non-parametric regression line for these results. Rather than computing the percentage of children enrolled in school for a fixed number of intervals of days worked, a statistical smoothing technique allows us to plot the percentage for every number of days worked, and thus see the smoother relationship (see Jensen 1999 for more...this figure is of course not necessary, a graph at a few intervals would be adequate).

Figure 3. Relationship between school enrollment and days worked in past year



This diagram shows an extremely sharp decline in the percentage of children enrolled in school as days worked per year increase. Over 80 percent of kids who don't work are enrolled in school, and this declines steadily and dramatically as days of work increase. Among children who work 180 days per year or more, the percentage also enrolled in school is close to zero. Such analysis could prove useful in establishing perhaps a legal 'maximum' hours of work days per year, or hours per day for children.

D. Research: Microeconomic analysis

Much of the analysis beyond the simply descriptive should rely on multivariate regression analysis rather than simple cross-tabs. At both the micro and macro level, this will allow us to test theories, such as the linkage between income and child labor; or the impacts on child labor of factors such as: adult labor supply, adult health, migration, economic shocks, school quality cost and access, parental education, poverty, income and attitudes; and the adult market wage. Much

of the detail of this methodology is outlined in my attached paper on Pakistan (Jensen 1999). We can estimate regression models which examine the effects of various factors have on the joint likelihood that a child works or is enrolled in school or both, including the amount of time spent in either activity. The variables we would want to 'control' or account for in our vector of explanatory variables, X , include measures mentioned above in the theory section of chapter 2, such as socioeconomic status, demographic structure of the household (female head, family size, number of siblings), gender, age, characteristics of local schools (where available), and prevailing child labor wage rate. Again, the advantage over cross-tabulations is the ability to explore factors in a multivariate setting, attempting as well as possible to isolate the impact of the variables we are interested in.

E. Macroeconomic analysis

Country-level data would be valuable not only for analyzing trends and conditions within countries, but also for exploring patterns across countries in order to look for commonalities and the impact of national macroeconomic and global economic factors on child labor more generally. Applying the indicators of child labor as our dependent variables, and the contextual indicators described in indicator set 4 of chapter 4 as our independent variables, we could estimate multivariate regression models to test for relationships like those shown graphically above at the macro-level. For instance we could estimate models of the form,

$$CLR_i = \beta_0 + \beta_1 X_i + \epsilon_i$$

where CLR_i is the child labor rate of country i , and the control variables X include GDP, amount of trade the country engages in, total fertility rates, etc. Again, the power of this research is to explore various hypotheses in a multivariate context, which will provide insight into the policies and contextual issues that lead to higher rates of child labor.

A large literature in the analysis of economic growth, spurred largely by Harvard's Robert Barro, has grown out of the use of repeated observations of macroeconomic variables across countries over time to explore what factors seem to have positive and negative impacts on the level and growth of economic performance. Such analyses could be performed with regard to changes in child labor also, as multiple surveys for several countries become available. Such analyses would permit the exploration of questions such as: Does an increase in national income lead to a reduction in child labor? Or increases in female education? International trade? Or the impact of national or international legislation and policies? Repeated observations on several nations over time could provide answers to these question and other questions on the impact of macroeconomic conditions on child labor.

Further, with time and as more survey data become available, it would also be possible to explore and evaluate the impact of national or ILO/IPEC policies and international efforts to combat child labor. We could make use of panel regression techniques, tests of causality, and

difference-in-difference regression methods to explore policy impacts. For example, we can see whether child labor dropped more in countries that adapted policies than in those that didn't, controlling for all other confounding factors such as national income, trade, etc., and also including controls for country 'fixed effects,' which allow us to control for factors common to the national context of a particular country. While there is always concern about whether countries that adopted programs and interventions are like countries do not, and thus whether the child labor rates would have declined more for these countries even in the absence of adopting the program, there is still a great deal of suggestive evidence that could arise out of such analyses. This could be a significant component of the impact assessment methodology discussed above.

Chapter 7. Conclusion, Additional Needs and Next Steps Forward

International effort and will to combat child labor are increasing. This is an opportune time to mobilize resources for the effort. The collection of data and development of indicators on child labor are an important component of those efforts. The SIMPOC survey is a powerful instrument that can influence the choice of policy instruments, targeting of programs and assessment of program impacts. There are several additional methodologies and information needs that could be used as a supplement to the existing SIMPOC survey. Several of these have been reviewed throughout this report. The highest information priorities and gaps in our understanding are, 1) how community level contextual variables affect child labor; 2) why firms hire child labor; 3) more information on the worst forms of child labor. Below, we discuss and summarize these information needs, including those that can be approached through the existing SIMPOC survey framework, as well as those that require alternative methods.

1. Information on characteristics of the community, particularly schools

As discussed repeatedly, community and other characteristics external to the household are important influences on child labor activity. For broader measures at the national level, which could be used for cross-country comparative work, it is reasonable to use both the quantitative and qualitative methods discussed in the set of indicators in chapter 4. However, for uncovering more of the root causes of child labor through basic research at the micro level, it is important to understand how conditions vary across communities within countries and how this variation can help explain variation in the incidence of child labor throughout the country.

SIMPOC could develop community surveys to be carried out in conjunction with the household surveys. Standard statistical sampling methodology applied by SIMPOC is undertaken in multiple stages: first, clusters of households are chosen, and then 10-15 households within a cluster are sampled (there may often be a initial stage of sampling above the community level as well, and there may also be sample stratification). For each cluster, it would be possible to find knowledgeable community leaders and ask them questions about the area, information which will apply to all households in the cluster. This information can then be merged with the household data for valuable analyses. Information could be gathered for instance on school access and quality, local wage rates for adults (men and women separately) and children, the main types of employment in the area, local drought conditions (important for agricultural child labor), the presence of NGO's and government organizations, access to contraceptives and family planning services, and attitudes. Rather than asking these important questions for each household, it is more efficient to ask them at the community level.

As relates to schooling more generally, need to include even at the household level a few questions on distance of household to a school, as this may affect school vs. work vs. idleness of children. Also, the measure should probably be distance to gender-relevant school (in many parts of the Islamic world, boys and girls must be segregated, especially post-pubescent women, so we would need to know how far each boy is from a boy's school and each girl is from a girls' school). It would be valuable to have information not just on how far it is to a school, but on attributes of that local school. Increasing evidence finds that school quality is an important issue in determining school enrollment, and probably child labor. We can explore the role school quality plays in child labor and whether improvements might help combat it. School quality measures could include the number, training and motivation of teachers, number of students in a classroom, access to textbooks, facilities, and curriculum.

It would also be valuable at the community level to record information on how much it costs to attend school, and the role these costs play in affecting child labor. Although education is public and free in most countries, there are often significant out-of-pocket expenses associated with school attendance, such as uniforms, books and other supplies, and fees. When households spend 70 to 80% of their income on food, such fees, although seemingly small, can become prohibitive. My work in Pakistan shows that there is evidence that households often must send one child to work in order to help finance the education of his/her siblings.

Community information will also provide information on how active local labor markets are: often children are kept home from school in order to work on family farm or business. This is ironic, given that children can gain if they get education, and given that adult unemployment rates are so high in most areas of low-income countries. Households should be encouraged (through wage subsidies perhaps) to hire-in labor rather than using their children, unless there are not active markets for labor. With community level information on local labor market conditions, we can perform analyses to identify areas where labor markets seem to be missing.

2. More Information Working Conditions

The survey could do more to capture key aspects of working conditions, especially those that are relevant to defining the worst forms of child labor. In regards to these worst forms, the survey instrument is able to capture excessive hours, and some detail relating to information on working conditions or working with machinery. However, there is less information on exposure to specific threats, such as working with chemicals, excessive heat or noise, dangerous machinery, or working underground, underwater or at heights. Identifying and treating these worst forms have been given priority. One difficulty, though is that a household-level survey may not be the most appropriate instrument for this information, as discussed above. Parents may not know about children's working conditions, and children may not be able to recognize all potential dangers. Specific questions targeting attributes such as those listed above are straightforward

and could provide useful information on their own. However, in conjunction there should also be industry-level assessments and analyses similar to those of Forastieri 1997, which provides specific approaches and methodologies to assessing health and safety risks for children in the workplace.

2. Methods Outside of the Existing SIMPOC Survey Framework

3. Need more information on why firms employ children.

As the discussion in chapter 2 pointed out, the demand for child labor by employers is an essential part of the child labor phenomenon. Although past attempts by the ILO to interview employers regarding child labor appears to have met with mixed success, it might be possible to attempt alternate methods. Or if sample surveys are not feasible on a large scale, could consider conducting in-depth qualitative case studies of certain industries (ex., The Economics of Child Labor in Hazardous Industries of India, by Anker, Barge, Rajagopal and Joseph). This exercise will also be useful to track trends such as the 'informalization' of the work process, for example when employers looking to avoid child labor laws hire-out work to individuals as home-work, or subcontract to smaller employers. Finally, as suggested in the assessment of the SIMPOC survey in chapter 4, it might be possible to ask children more about their workplaces in order to learn about the industrial organization of firms that employ children.

4. More information on less visible forms of child labor

Many forms of child labor, especially those among the list of worst forms, are typically not easily captured in a formal survey setting. This may be because either respondents will not reveal such sensitive information, or because some of the children so engaged may not be living within households, and thus can't be interviewed. For example, a household-based survey will miss children who are working as indentured servants, bonded laborers, soldiers or street children. The SIMPOC survey could be complemented with methods which are better suited to measuring such 'hidden' forms of child labor, for example Rapid Assessment Surveys.

An additional way in which these might be implemented is when most countries undertake their population censuses in the year 2000. These are unique opportunities in which countries mobilize large resources, and attempt to survey all individuals in a country, even homeless or street children. The ILO-IPEC should explore the possibility of encouraging some nations to include questions on their population censuses dealing with the circumstances of the most vulnerable children who would not be reached by conventional methods.

5. Supplementary Data Collection: Rapid Assessment Surveys

To date, there have been few successful efforts at systematically sampling street children, child soldiers or prostitutes. For this, we will need to rely on case studies, and rapid assessment methodologies. Rapid Assessment Surveys are extremely valuable in that they are designed to get quick, insightful assessments of the nature of the child labor problems in a particular country. However, RAS' are not well-suited to answering larger questions such as why there is child labor. For these kinds of questions, it would be necessary to employ a much longer survey questionnaire. Thus the tradeoff in RAS' is between cost/expedience and depth of coverage and exploration. RAS' also tend to be a bit more subjective, with more to the interpretation of the field worker. RAS's are also not intended to provide representative samples of the population, since the costs of sampling and engaging these time and skill intensive methods on a large scale are prohibitive. It must then be kept in mind that the survey treats only a few areas, and does not represent the situation throughout the country. Additional information can be found in the recent Rapid Assessment Manual conducted for the ILO.

6. Additional research into the causes of child labor

As outlined in the previous chapter, there is a great deal of research that could provide more insights into the pathology of child labor. There is a need for more basic theoretical and empirical research, both within and outside the SIMPOC instrument. IPEC/SIMPOC can play a role in either performing such basic research internally or as data from the surveys become available, or through external collaborations, including possibly providing fellowships for study, research grants, or visiting positions for researchers to work at ILO.

In terms of basic research and the policies discussed in the previous chapter, there are other key questions we don't know the answers to that require basic research before effective policy and program interventions can be designed:

Key Research Questions for Identifying Causes of Child Labor and Designing Interventions

- ? What is the role of fertility and family planning? If households with more children are more likely to have child workers, why don't parents have fewer children and invest more in each? This is the so-called quantity-quality tradeoff. Is child labor not seen as bad? Are parents unable to control their fertility, and thus end up with more children than they would prefer?
- ? Are imperfect labor markets part of the problem? Why should households use their own child labor rather than hiring in workers? Why do employers prefer child laborers?
- ? Does legislation work? School compulsory or minimum work age?
- ? Does work always compete with schooling?
- ? What impact will globalization and increased trade have on child labor?
- ? Can credit or insurance help reduce child labor by easing the burden of economic shocks on households and reducing the need to possibly undertake debt?
- ? What impact would mechanization or changes in technology have on the demand for child labor?
- ? How substitutable are child and adult labor? Would a ban on child labor increase adult wages?
- ? What impact would enforcement of the minimum wage have on child labor?

7. Special Reference to accessibility of the data

Previous IPEC survey data have gone somewhat underutilized. After the initial reports were created, the original data were no longer available for further research. There is a need for a strategy for data management and storage and the creation of a centralized database. This database could contain both information and tables, as well as the raw microdata. Further, the data should be made available to all researchers, as soon as they are available and cleaned. These data should not only be made available, they should be highly visible, so that not only individuals seeking them out find them, but individuals who are not even aware of their existence will quickly be made aware. Information is a public good, and once it has been collected, everyone should have free access. The goal of collecting the data is to further the cause of treating child labor, and the best way to learn about child labor is to make data public and accessible. Disseminating information about the data, posting on the ILO website and creating links to researchers and institutions concerned with child labor are the best way to proceed. In this regard, the various World Bank Living Standards Measurement Surveys (LSMS) (<http://www.worldbank.org/html/prdph/lsm/lsmshome.html#top>) and the Demographic and Health Surveys (DHS, www.macront.com), both of which have been collected in many countries, are ideal models for web-based dissemination of data. And as evidence of the results, to date there have been several hundred research papers written using both these sources of data, for research, policy analysis, advocacy and resource mobilization within countries as well as for learning more generally about household behavior, including labor supply, fertility, and health.

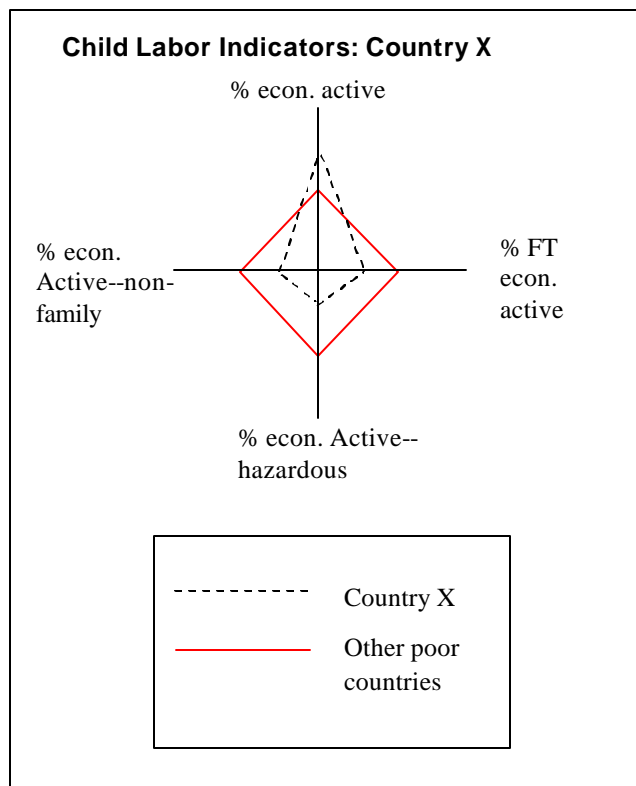
Further, the data should be made easy-to-use, and converted into various formats friendly to a number of statistical software packages (it is more efficient to do it once centrally rather than have every researcher have to convert the data on their own). Researchers at ILO or within academia can't understand all the context of a specific country (culture, institutions, laws, etc.). The ideal model is that advocates, researchers, government and NGO's within the host country should be able to analyze the data, having access to special assistance as needed (perhaps via training workshops). Developing capacity to undertake analysis within the host countries should be part of the goals of SIMPOC. Improvements in computer speed and processing power, and the decline in the cost of such computers, coupled with development of easy-to-use software have made data analysis extremely easy tasks, and the true power will come when more individuals are able to use, apply and learn from them.

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Appendix 1. Possible Visual Representation of the Child Labor Indicators

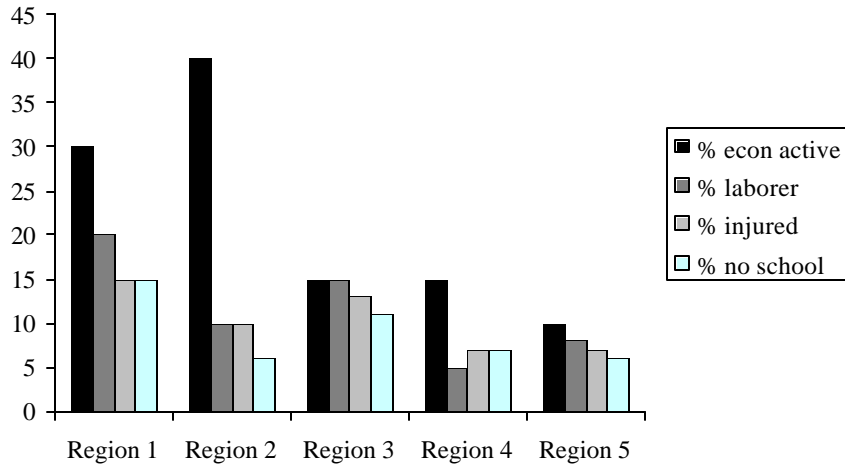
One simple and powerful graphic presentation of data along many dimensions, such as the indicators of child labor, is to use 'diamonds.' In this form, we create axes with any four indicators we feel are appropriate, and plot the level of that indicator for the given county on each axis, then connect the points. The value is that we can also present data for other countries, so that we can see visual comparisons,



From a figure like this, you can see instantly that while country has a large % of children who are economically active, even compared to other poor countries, it has a smaller percentage who qualify as child laborers, who are not in school or who have been injured on the job. We can also use this to examine differences within countries, for example by adding separate lines on the diamond for urban vs. rural or by region within a country.

Alternatively, some of this information could also be presented in bar graphs,

Child Labor, By Region



This figure summarizes the same information as the diamonds above, and allows comparison across regions.

Pakistan

COUNTY PROFILE PAKISTAN

Population and Human Capital

XX
 XX
 XX
 XX
 XXX

Economic Profile

XX
 XX
 XX
 XX
 XXX

Status of Education

XX
 XX
 XX
 XX
 XXX

Legal Environment and Labor Standards

XX
 XX
 XX
 XX
 XXX

Institutions, culture, society and context

XX
 XX
 XX
 XX
 XXX

Country Profile

<u>Indicator</u>	<u>1998</u>	<u>Average, Other Countries</u>	<u>Rank</u>
Population (millions)	120		8
Total Fertility Rate	4.5		5
Population Growth (%)	3.5		4
Poverty Rate (%)	40		8
Life expectancy	64		12
Infant Mortality Rate	133		
Malnutrition Rate	23		
Illiteracy Rate	55		
GDP			
GDP Per Capita			
GDP Growth (%)			
Share GDP			
Agriculture			
Manufacturing			

Trade: (export share GDP)			
Schooling			
Expend. per pupil			
Pupil/teacher ratio			
Minimum working age	14		
Compulsory Schooling Age	none		

Child Labor Profile

<u>Indicator</u>	<u>1998</u>	<u>Average, Other Countries</u>	<u>Rank</u>
<i>Work</i>			
Child Workers (1,000)	1,200		10
Participation Rate (%)	35		4
Child Laborers (1,000)	600		8
Child Labor Rate (%)	15		8
% work agriculture			
% work own family			
Average hours/week			
<i>Impact/conditions</i>			
Avg. hours per week			
Avg. months per year			
% injured at work			
% serious injury work			
% workers in school			
<i>Schooling</i>			
% all childrn in school			
% never attend school			
Dropout rate			
Idleness			

Current Child Labor Situation

XX
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Interventions and Programs (ILO, IPEC)

XX
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Trends and Impact Assessment (ILO, IPEC)

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 XX
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Projections for the Future

XX
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 XXXXXXXXX.

Table 1. Overview of Survey Content and Rationale

Topic Area	Questions Asked	Rationale
Economic Activity	? Engaged in any economic activity? “current” (last 7 days) and “usual” (last 12 months). ? # hours worked per day. Months per year ? Housework during past week? # hours housework ? At what age start to work for 1 st time?	? Core questions related to child economic activity. ? Valuable because also include housework.
Schooling	? Are you currently attending school? If no, why not? ? Child attends school while engaged in economic activity?	? Child labor and schooling are intimately intertwined. ? Plus, need to know if they are doing both, or neither.
Other activities	? Child idle in past week? Why idle? ? What does child do for fun when not working?	? Some children who don’t go to school also don’t work. Not in school may not always be caused by working.
Children away from home	? Where do they live? What do they do? (work, school) ? Is child in touch with household? Last time in contact. ? Do they send money or goods?	? Many children sent away from home to work or attend school. Need to account for these cases. ? Household coping strategies.
Compensation for work	? Amount paid for work. Receive prevalent wage payment? ? Work overtime and paid for it? Which benefits receive? ? Give earnings to parents or other relatives? ? Save any earnings? Why? ? If child stops working, what will happen to household?	? Children may be important contributors to household income. ? How much do households rely on children? ? What will be the consequences of eliminating child labor.
Workplace conditions and potential hazards for child workers	? Use protective wear? Do others use protective wear? ? Required to operate any tools, equipment or machines? ? Aware of any health hazards associated with your work? ? Any problems or difficulties with job? Relationship with employer? Satisfied with present job? Why not?	? To be able to distinguish between dangerous and less dangerous forms of work.
Impacts of work on children	? Ever been hurt at work? How often hurt? ? Activities performing when hurt. ? Nature of injury? Seriousness of injury? ? Consult a doctor/hospital? Who paid? ? Does work affect regular school attendance or studies?	? More direct way of distinguishing more dangerous forms. ? Addresses adverse consequences of child labor on children, from injury to school attendance.
Attitudes, aspirations, perceptions	? Why do you let child work? ? What would you prefer child do in future? ? What would you like to do when grown up?	? Sending a child to work or to school will be affected by the parental aspirations for the child, attitudes towards child labor, and perceptions of the value of schooling.
Migration	? Has household ever changed place of residence? Where from? Why change? How long in current place? ? Child always lived in household? Where live before? What doing before? Why come here? How long current place?	? Children often change residence related to their employment. This set of questions allows us to trace that phenomenon.
Household Socioeconomic Status	? Average monthly expenditure. Income. ? Main activity got income from. ? Ownership of household assets. Own current dwelling. ? Housing conditions: type of dwelling, number of rooms, facilities, sources of lighting, water, fuel.	? It is often argued that poverty is the cause of child labor. These questions allow us to explore the relationship between child labor and household socioeconomic status. Will also give a partial indicator for how important child’s income is for household welfare.

Table 2: Proposed Indicators of Child Labor

Category	Indicators	Definition	Data requirement
Indicator Set 1. Work: Incidence and Magnitude			
Economic Activity	1A. Economically Active Children 1B. Labor Force Participation Rate By: Age Group; Gender; Region; Rural/Urban.	The number (or %) of children who are economically active i.e reported to have worked either for pay (cash or kind) or unpaid family and domestic workers during the reference period.	Data on economic and non-economic activity status of target children (5-17) by age, sex, region. <i>Available from current SIMPOC instrument.</i>
Child Labor	2A. Child Laborers 2B. Child Labor Rate By: Age Group; Gender; Region; Rural/Urban.	# and % of children who reported to have worked either for pay (cash or in-kind), or unpaid family and domestic workers during the reference period, and nature of work or amount of time spent working meets <u>any</u> of the following conditions: child is below the minimum age for the industry or type of work; works excessive hours; works in one of 'worst forms' C. 182; works unsafe conditions, as specified in reference to Article 4 of C. 182.	Same as above but indicating industry and nature of engagement. <i>Available from current SIMPOC instrument.</i>
Employer	3. Work by employer status By: Age Group; Gender; Region; Rural/Urban.	Percentage of workers who work for own-family vs. for an external employer.	<i>Available from current SIMPOC instrument.</i>
Location	4. Work by location of employment By: Age Group; Gender; Region; Rural/Urban.	Percentage of children who work at home v. away from home.	<i>Available from current SIMPOC instrument.</i>
Sector	5. Work by sector of employment By: Age Group; Gender; Region; Rural/Urban.	Percentage of workers who work in various employment sectors (manufacturing, services, agriculture, construction, handicrafts, textiles, etc.).	<i>Available from current SIMPOC instrument.</i>
Intensity of work	6. Average Hours worked per week By: Age Group; Gender; Region; Rural/Urban; sector.	Average of hours worked per week among child laborers.	<i>Available from current SIMPOC instrument.</i>
Intensity of work	7. Distribution of Hours worked per week By: Age Group; Gender; Region; Rural/Urban; sector.	The distribution of hours worked per week among child laborers.	Need questions relating to total hours worked per week on all activities. <i>Available from SIMPOC instrument.</i>
Intensity of work	8. Months worked per year By: Age Group; Gender; Region; Rural/Urban; sector.	Average months worked per year among child laborers.	Need questions relating to total months worked per year on all activities. <i>Available from SIMPOC instrument.</i>

(Continued next page)

Table 2: Proposed Indicators of Child Labor (Continued)

Category	Indicators	Definition	Data requirement
Schooling Indicators			
School enrollment	9. Net School Enrollment Ratio	For children of the official primary school age group, enrollment in primary education, expressed as a percentage of the population.	questions relating to age and whether child is enrolled in school, <i>available from current SIMPOC instrument</i> . Also need information on schooling age within a given country.
School participation	10. Never Attended School By: Age Group; Gender; Region; Rural/Urban; whether currently child laborer; whether currently child worker.	Percentage of all children who have achieved the age for of mandatory attendance of primary school who have never enrolled in school.	Whether the child has ever attended school. <i>Available from current SIMPOC instrument</i> .
School leaving	11. School Dropout Rate By: Age Group; Gender; Region; Rural/Urban; whether currently child laborer; whether currently child worker.	Percentage of all children who are above the age for mandatory attendance of primary school and below the legal school-leaving age, who are not attending school, but have attended school at some point in their lives.	Same as two previous indicators. <i>Available from current SIMPOC instrument</i> .
Work and school	12. Laborer Students By: Age Group; Gender; Rural/Urban;	Percentage of all children currently enrolled in school who are child laborers.	<i>Available from current SIMPOC instrument</i> .
Work and School	13. Student Laborers By: Age Group; Gender; Rural/Urban	Percentage of all child laborer who are currently enrolled in school.	<i>Available from current SIMPOC instrument</i> .
Idleness	14. Idleness Rate	Percentage of al children who are neither economically active nor enrolled in school.	<i>Available from current SIMPOC instrument</i> .
Indicator Set 2. Correlates and Causes of Child Labor			
Causes	15. Child Labor Rate, by family size By: Gender; urban/rural.	For a given family size, create a simple tabulation of the percentage of children who are child laborers.	<i>Available from current SIMPOC instrument</i> .
Causes	16. Child Labor Rate, by gender of household head By: Gender; urban/rural.	% of children from female headed households who are child laborers vs. from male headed.	<i>Available from current SIMPOC instrument</i> .
Causes	17. Child Labor Rate, by socioeconomic status By: Gender; urban/rural.	For deciles of income/expenditure (or above/below poverty line), % of children who are child laborers.	<i>Available from current SIMPOC instrument</i> .
Causes	18. Child Labor Rate, by reason child works By: Age; Gender; urban/rural.	% reporting various reasons why child works; (need income; pay debt under contractual arrangement; assist household enterprise; education not suitable; school too far).	<i>Available from current SIMPOC instrument</i> .
Indicator Set 3. Consequences of Child Labor			
Consequences	19. Injuries among child laborers By: Age; Gender; sector of employment	Among all children who have ever worked, % hurt at work.	<i>Available from current SIMPOC instrument</i> .
Consequences	20. Serious Injuries among child laborers By: Age; Gender; sector of employment	Among children who have been hurt, % where injury resulted in hospitalization or permanently prevented work.	<i>Available from current SIMPOC instrument</i> .
Consequences	21. Work Interference with Schooling By: Age; Gender; urban/rural.	Among child laborers, % reporting their work interferes with attending school or studies.	<i>Available from current SIMPOC instrument</i> .
Consequences	22. Consequences of eliminating child labor By: Age; Gender; urban/rural.	What would happen if child stopped working (household living standards decline, household can't afford to live, household business can't run).	<i>Available from current SIMPOC instrument</i> .

(Continued next page)

Table 2: Proposed Indicators of Child Labor (Continued)

Category	Indicators	Definition	Data requirement
Indicator Set 4. Contextual Indicators			
Population and Human Capital	Total fertility rate	the average number of children a woman can be expected to have over the course of her life	Demographic and Health Surveys; World Development Report
Population and Human Capital	Poverty Rate	% households with income less than \$1 per person per day	World Development Report; Human Development Report
Population and Human Capital	Life Expectancy	Average years expected to live at birth	World Development Report; Human Development Report
Population and Human Capital	Adult Literacy Rate	% population 15+ who can read.	World Development Report; Human Development Report
Education System	Public School Expenditure (% GDP; per student)	Public expenditures on primary education, as % of GDP and per pupil (2 separate measures)	UNESCO
Education System	Pupil/teacher ratio (School quality)	Ratio of students per teacher. A good indicator of school quality.	UNESCO
Education System	Costs of Attending School	Average cost attending primary school; fees, tuition, uniforms, books, supplies, transport.	Available for selected countries from LSMS; need to add to SIMPOC questionnaire.
Economy	GDP per capita	Total GDP divided by total population.	National accounts; WDR; HDR; Economist Intelligence Unit
Economy	Output Composition	% of GDP for: agriculture; industry; construction; mining; manufacturing; services	National accounts; Economist Intelligence Unit; WDR database.
Economy	Capital intensity, manufacturing and agriculture	Standard Index of capital intensity, or capital/labor ratio.	National accounts; Economist Intelligence Unit; WDR database.
Economy	Trade Engagement	Share of imports and exports in GDP.	National accounts; Economist Intelligence Unit; WDR database.
Labor Standards and Legal Environment	minimum working age;	Minimum working age, by industry. Likely to comprise more than 1 simple indicator.	NATLEX; ILO database; recent ILO report measuring standards.
Labor Standards and Legal Environment	Compulsory schooling age;	Age to which children must remain in school.	UNESCO

Table 3. Partial list of factors relevant to child labor, indicators that can be used to identify them, and interventions to deal with them

Factor	Indicator	Intervention/Policy/Program
Schools		
Access	Indicator 18: Reason child works: educational institution too far. (I) Could add question on distance to nearest school on a community questionnaire. (C)	Construction of schools. Access could also relate to coordination of school day --if children work during the day, it may be that children could also attend school if classes were held in the late afternoons or evenings.
Cost	None currently available. Could add to community questionnaire.	School fees: see if tied to debt and structural adjustment (indicator X). If so, mobilize international attention around the issue that countries undertaking World bank/IMF structural adjustment programs often required to add school fees. HIPC initiative?
Relevance	Indicator 18: Reason child works: educational not suitable. (I)	Curriculum design, make content more locally relevant. Teaching of more applied work skills. Educate parents on potential value of education for children.
Quality	Indicator Set 4, spending per pupil and pupil-teacher ratio. (N) None currently available at community level. Would be useful to be able to compare quality across communities within a country. Also, could run regressions of school quality on probability of working.	Encourage greater spending on educational institutions.
Debt	Indicator 18: Reason child works: repay debt under contractual arrangement. (I) Add more questions about debt, sources of credit and insurance.	Public or NGO-sponsored credit or insurance programs, especially to deal with short term economic needs or income shocks.
Poverty	Indicator 17: Income, relative to the poverty line (I) Indicator Set 4: Poverty rate (N)	Promote adult employment, sustainable livelihoods. Income grants for households with structural problems of poverty, such as poor health or disability. Also, explore provision of economic incentives: PROGRESA program in Mexico 'pays' children to go to school.
Volatile Income	None currently available. Could add questions about shocks to income or sudden expenditure needs (health expenses, etc.).	Public or NGO-sponsored credit or insurance programs, especially to deal with short term economic needs or income shocks. Strengthen households' ability to cope with shocks: credit, savings, insurance, etc.
High fertility	Indicator 15: Child labor, by family size. (I) Indicator Set 4. Total fertility Rate. (N) Indicator Set 4. Contraceptive Prevalence Ratio (N) Need more information on whether households have a need for family planning services, as well as availability.	Family planning programs. Programs to educate parents about the benefits of smaller families. Efforts at reducing risks of infant mortality, which will correspondingly then lower fertility rates.
Parental attitudes and perceptions	Indicator 18: Reason child works: educational not suitable. (I) See if differs boys vs. girls. More indicators needed at I and C level to uncover attitudes about child labor, perceptions of education and goals for children.	Information and education programs to promote the value of education for children. Especially as relates to gender differences.
Demand for labor: Home	Indicator 18: Reason child works: assist household enterprise. Add questions about whether it adults or ill, injured or disabled and thus children must perform their work around the household or family enterprise.	Use of labor saving devices. Labor market wage subsidies to encourage farmers to hire workers rather than use own children. For households with disabled/deceased adults, income support grants so children don't have to work on family enterprise.
Demand for labor: Outside enterprises	Indicator Set 4: Mechanization indicator, capital/labor ratio (N). Need more information on firms. (F)	Labor market wage subsidies to encourage farmers to hire workers rather than use own children. Promote technology that enhances relative productivity of adults.

Level at which indicator operates: I: Individual (or household); F: Firm; C: Community; N: National