Broader Definition of Child Labor-Conceptual and Empirical Analysis

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Abstract:

Research on child labour usually works upon a definition of labour which means work outside home and which is also economically productive. But in recent years the definition of child labour has undergone a change. It has been broadened to include all that work which children undertake at home and which is economically non-productive. Taking this broader definition of child labour the present research conducted in the rural areas of Pakpatten and Faisalabad shows how many children are affected by child labour and which social, economic factors are responsible for it. The research findings show that female chaildren bear greater burden of labour and their work is not paid. The findings also dig into various social and economic factors responsible for increased child labour in rural areas.

1. Introduction

The estimation of child labor varies depending on how the child labor is defined. In empirical literature on child labor, there is a tendency to narrow the discussion and analysis to market labor. Market labor typically includes both work for wages and work in a production process in the household that results in marketable output. So only "economically active" children are classified as child laborers. The more conservative definition of child labor dictates that only work for wages outside the home should be considered as child labor. The presumption behind this interpretation is that any labor inside the home, or in the family's economic enterprises, is directly monitored (or monitorable) by parents so its arduousness is internalized.

On the other hand, the liberal interpretation of child labor tends to include time spent on household and chores in addition to economically active work (both for wages and household enterprise)[1]. The presumption here is that work at home or in the family enterprise can be as hard as work outside [Grootaert and Kanbur 1995]. As the opportunity cost of schooling is concerned, little attention is paid to the role of housework, rather most authors [Jensen and Nielsen 1997; Psacharopoulos 1997] consider only the forgone wages from child labor as the opportunity cost of schooling. However, it is widely known that work at home constitutes a large part of children's

[1]. Ray, 2000. included the domestic work in child labor and termed it as relaxed treatment of child labor.

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work-especially that of girls [Grootaert and Patrinos 1999]. In Pakistan, 82 percent of girls in the age group of 10-14 years are neither attending school nor going for paid work but are involved in home-care activity [cited in Burki and Shahnaz 2001].

There are a number of micro-studies in Pakistan, which estimated child labor based on narrow definition of child labor (economically active children). The only national level child labor survey [FBS 1996] also adopted the narrow definition of child labor. In the paper we are going to estimate rural child labor adopting broader definition and terming it as general child labor. First, we shall discuss, why the broader definition is important for child labor analysis.

i) In rural areas of Pakistan, there is a large pool of children who at first glance, appear to be idle as they report that they neither work nor are in school. They are classified as home-care children or unpaid family workers who perform household chores[2]. In fact these children are rarely idle although they do not directly contribute to family budget, but their labor is important input to household production. These children take up tasks at home to relieve the adults to join the workforce [Duraisamy 2000]. In Pakistan about 70 percent of child labor is involved in unpaid family helping [Ghayur 1997:51]. Weiner and Noman [1995:216] narrated that in rural economy of Pakistan, female child labor is extensive but largely unpaid and elder daughters often take over household chores, to relieve their mothers for productive employment.

ii) Illahi [2001] argued for the inclusion of home-care activity in child labor and making the definition broader. By not doing so, one runs the risk of overlooking effects of some important factors on children's time use, particularly that of girls. In order to improve schooling outcomes, policy makers need to be aware of household factors that constrain the schooling. The traditional approach of debate on child labor by focusing on the choices between income generating activities of children and schooling is likely to have a bias. Blunch and Verner [2000] stressed to analyze harmful child labor. They defined harmful child labor as the activity that conflicts with education/human capital accumulation of child. As home-care activity hinders the schooling of children so it should be included in harmful child labor. Inclusion of home-care activity in child labor makes the definition broader.

iii) Some studies [Skoufias 1993; Mason and Khandker 1997] have analyzed the opportunities and constraints of child work at home and resulted that ignoring the children's housework is likely to ignore an important aspect of their work. Duraisamy [2000] supported the notion and demonstrated that the future surveys should pay more attention to enumerate carefully the activity of home-care, i.e. the activity of children who are neither reported in school nor participated in work.

iv) It is robust in human capital literature that cost of schooling decreases the demand for children's education. Typically, there are two components of cost, i.e. direct cost and indirect or opportunity costs [Rosenzweig 1990]. Not including

[2] Cartwright and Patrinos. 1999. categorized the children who are not formally employed as "home-care".

opportunity costs in analysis of demand for education may create a missing variable problem. The opportunity cost of home-care children is comprised of the value of foregone time in housework.

v) Cunningham and Viazzo [1996:45] pointed out that one of the main reasons for making primary schooling compulsory in England, in 1880, was not so much to deal with child labor but to compel children described as "unemployed" to go to school, rather than to fall in to the clutches of idleness and ominous vices. The objectives of the child labor and schooling policies were to send the children to school. Today the Pakistani children out of school, whether they are economically active or doing home-care need attention in this context.

vi) Cigno et. al. [2001] termed the children who are neither reporting school nor participating in work as "nowhere" children and argued that in certain circumstances, these children have such a low productivity that it is not worth employing them in any economic activity, and their parents are too poor to send them to school. That may well be the case, but we do not found it plausible that so many children are left totally idle by choice. Cigno et. al. [2001:30] further found that the effect of the child's sex and age, of household composition, and of mother's education on child laborers is of the same kind for nowhere children, so the two groups may be one and the same thing or, at least, that the nowhere children category contains a substantial proportion of working children. Consequently nowhere should be considered as working children.

vii) Moreover, if the child labor estimated by narrow definition decreases overtime, but the child labor by broader definition does not slide down, then all efforts done to pull down child labor participation would go in vain. As the child labor by broader definition will exist and school participation and ultimately human capital formation will remain low. So the broader definition of child labor is important for policy perspective [see also Burki and Shahnaz 2001]. As majority of the girls are involved in home-care activity, so the policy aimed to decrease the narrow based child labor will be little effective for girl child labor. The adverse situation of school participation by girls and gender disparity would still exist.

viii) Bequele and Myers [1995:119] narrated that most widespread single risk that child laborers face is the substantial amount of time loss undermining their basic education. Therefore, all children without exception should receive at least basic education. Work (that may be economic activity or home-care) that prevents them from attending school is hazardous and it should be prohibited.

ix) The inefficient legislation is one of the causes of slow elimination of child labor as home-care activity of children is excluded from legislation [Ahmed 2000]. On the other hand legislation on compulsory education is one of the most effective instruments for eliminating child labor. So strategies for elimination of child labor need more information about both categories of child labor, i.e. economic activity and home-care activity.

The home-care activity is bad form of child work, as it is undertaken at the expense

of educational attainment. Specifically in developing countries such activity is often performed at the expense of education, which makes it an important issue warranting further analysis [Blunch and Verner 2000]. A better understanding of the two activities (economic activity, and home-care) of children is likely to better inform the policy debate on how child labor in general (economically active children and home-care children) can be reduced. That is why the present study included the two categories in general child labor and estimated them. In the coming pages the terms general child labor and child labor are used alternatively. However, child labor by narrow definition is termed as economically active children. Our main contribution is the use of broader definition of child labor in the estimation and analysis of child labor in rural areas.

2. Methodology and Data Collection

ILO defined child labor as "economically active" children but we have gone beyond the ILO definition of child labor to include home-care activity in child labor. Activity performed by children inside or outside their home without remuneration other than work at household enterprise is defined as domestic/home-care activity. Children are defined as the individuals in the age cohort of 5-15 years. In the study the distinction between children in the age group of 5-10 years and 11-15 years is made to emphasize the difference between child labor of primary and post-primary school-age children.

Cluster sample technique is adopted for data collection and sample of the population is selected randomly irrespective of the child labor. Although FBS [1996] has also adopted cluster sample technique but the cluster was taken so that it has concentration of child labor. This makes the present study distinct from previous study. The sample observations of the present study consisted of two thousand households from rural areas of Pakpattan and Faisalabad.

The survey collected information on the particulars of children who are economically active, and those doing home-care. Using the data set, we examined the variations in two categories of child labor by household socio-economic characteristics. Non-child labor income is taken as the income of household to undertake the Basu and Van [1998] axiom that household send their children to work if family income from non-child resources is low. Only ownership of physical assets of the household is taken as a characteristic of household to check the hypothesis of capital market failure as the cause of child labor.

3. Objectives

The study is carried out to estimate the child labor in rural areas and to ascertain the socio-economic aspects of child labor as:

- Different categories (economic activity) of child labor
- Gender dimensions of child labor
- Child labor in primary school-age and secondary school-age group
- Parent's perspective of child laborers, i.e. income, employment, educational status of parents and ownership of assets by household, etc.

4. Results and discussion

The detailed results of the survey are as:

4.1 Magnitude of Child Labor: The categories of child labor in which a child falls vary with the child's age and gender. If boys and girls work in different ratios in child labor categories, and age groups, in fact they have been differently affected by child labor. The magnitude of child labor in the two categories of child labor by age and sex is shown in table-1.

Table-1. Magnitude of General Child Labor by Categories, Age and Sex (In Percentage)

categories	age group (years)	male	female	overall
Economically Active Children	5-10	0.50	1.06	1.58
	11-15	3.03	1.92	4.95
	5-15	3.53	2.98	6.51
Home-Care Children	5-10	8.50	9.85	18.85
	11-15	4.57	13.6.6	18.17
	5-15	13.07	23.45	36.52
General Child Labor	5-10	9.00	16.91	19.91
	11-15	7.6	9.52	23.12
	5-15	16.6	26.43	43.03

(a) By Categories of Child Labor: Generally, it is perceived that most of the child labor is engaged in family-based enterprises—agriculture or non-farm business but in South Asia work for wages constitute a significant portion of child labor [Ilahi 2001]. We found that in rural Pakistan majority of the child labor is engaged in home-care activities and it is six times more than the economically active children [See, Duraisamy 2000 for such type of results for India]. About one in 15 children in rural areas of Pakistan is engaged in economic activity and one in 3 is involved in homecare activity. The excluding home-care or housework from child labor can significantly understate the child labor and it can make bias the policy prescription.

(b) By Gender of the Children: There is a division of labor by gender in child categories. In the age group of 5-15 years, more male children are involved in economic activity tha female children but in home-care category girls do home-care double than boys [See also, Durrant 1998 for Pakistan; Edmond and Turk 2002 for Vietnam].

There are competing views on why time-use by children differs by gender. One argues that social roles and norms dictate the segregation of activities by gender—girls mostly do household chores and boys engage themselves in income-generating. The other suggests that differences in time use by gender can be explained by differences

in economic activities and constraints that boys and girls face. An extreme position in this regard is that work activities are divided along the lines of comparative advantage—boys are better at market work and girls at housework.

(c) By Age of Children: For the overall children, economic activity increases and home-care activity slightly decreases in higher age group. As the general child labor is combination of these two activities, the general child labor increases in higher age group. For the boys and girls separately the economic activity increases in higher age group but home-care activity decreases for boys in higher age group and it increases for girls in higher age group.

4.2 Ratio of Child Labor Categories, by Age and Sex in General Child Labor: *Ahmed [2000] opined that for child labor elimination policies, the specific data about child labor, i.e. child labor in different categories, age groups and sex is needed. We find that in rural areas, 34.49 percent of the households are producing child labor. Out of the households having school-age children, 64 percent are producing child labor. The ratio of child labor in categories, in different age groups and sex to general child labor is shown in table-2.*

Table-2. Ratio of Child Labor Categories, by Age and Sex in General Child Labor

categories	age group (years)	male	female	overall
Economically Active Children	5-10	1.06	2.72	3.40
	11-15	6.48	4.76	11.56
	5-15	7.54	7.78	14.96
Home-Care Children	5-10	19.04	35.37	55.78
	11-15	10.20	17.00	27.21
	5-15	29.24	52.37	82.99
General Child Labor	5-10	21.63	38.79	60.42
	11-15	17.51	22.07	39.58
	5-15	39.34	60.86	100

It is estimated that out of the general child labor (5-15 years) almost 15 percent child laborers are economically active and equal ratio of girls and boys is involved in this category. In the age cohort of 5-10 years girls are more involved in economic activity as compared to boys but in the 11-15 years age group boys are more involved as compared to girls. It means by increase in age boys are more likely to involve in economic activity but girls are less likely to involve in this activity. Simply there are socio-cultural and economic reasons for girls to remain economically inactive and to take the responsibility of home-care, as in the category of home-care.

Out of the general child labor (5-15 years) 82.99 percent are engaged in home-care activity. In this category girls are more involved as compare to boys. By increase in age the child participation in this category decreases for both males and females as well as in all the age groups. This is the category in which highest ratio of general child labor is involved. To get the school participation maximum this category needs stress in child labor and schooling policies. As the children in this category have lower opportunity cost of schooling in monetary terms so it is comparatively easier to send them school. The policies to enhance school participation can be free schooling and material aid (food in school, books, uniform, etc) to school-age children or parents.

It is generally narrated that more boys are involved in child labor in Pakistan [see, FBS 1996 for Pakistan; Duraisamy 2000 for India] but we have taken the broader definition of child labor, and it is concluded that more number of girls are involved in general child labor as compare to boys. Deraff et. al. [1993] for Philippine, Skoufias [1994] for rural areas of India, and Skoufias [1993] for rural households of South Asia have concluded same type of results by using inclusive (broader) definition of child labor.

A number of studies have shown that child age is an important determinant of child labor. The children are more likely to engage in child labor as grew older. The intuition behind this is that the value of child labor increases with age, which enhance the likelihood of child labor [see, Durrant 1998; Ray 2000 for Pakistan, see also, Blunch and Verner 2000 for Ghana; Duraisamy 2000 for India]. Child labor increases with age also because earnings foregone raises with age. As children grew older and their potential earnings increase, they are pulled out of school. The present study found that in the category of economically active children the ratio of child labor increases with age, i.e. ratio of the child labor in the age cohort of 5-10 years is 3.4 percent but in the age cohort of 11-15 years it becomes more than triple, i.e. 11.5 percent. So for the economically active children increase in age enhances the opportunity cost of schooling, so more children participate in labor market. On the other hand the home-care activity of children decreases with age. Home-care takers in the age cohort of 5-10 years are almost 57 percent but in the age cohort of 11-15 years they are 27 percent. It is evident that by increase in age the parents prefer for their children to engage in economic activity instead of remaining economically inactive. That is, the opportunity cost of home-care activity is less as compare to economic activity. The average age of the general child laborers is estimated as 8.81 years, while for boys it is 9.6 years and for girls it is 7.75 years. It reveals the fact that girls start work at an earlier age as compare to boys alternatively they end working earlier.

In Pakistan, survey results assumed that boys are not commonly involved in domestic work but household chores account for more than 90 percent of girl's labor force [Ray 20001:350]. We find that boys are also involved in home-care activity in rural areas, though the girl participation is double than that of boys.

4.3 Educational Experience of General Child Labor: The educational experience of general child labor is significant to highlight for the policy intervention at the stage

of education. The educational experience of general child labor is shown in table-3.

Table-3. Educational Status of general Child Laborers.

Educational Level	Child Labor (Percentage)	
	MALE	FEMALE
Illiterate	45.16	84.00
1-2 years	19.46	8.69
3-4 years	12.90	4.34
5-6 years	19.25	2.04
7-8 years	1	Nil
9-10 years	Nil	Nil
Total	100	100

A large share of general child laborers have little school experience which suggests the existence of large pool of children working form a very young age. These children are almost illiterate and equipped with few skills. These children will never be able to compete for decent jobs later in life. As concerns the girls, the educational experience of the girls is less than boys.

Households make their decision for child labor weighing expected cost and benefits of the option between child schooling and labor. Primary schooling is relatively simple and less costly as compared to middle and secondary education. Therefore the probability of dropout from school increases after primary. Moreover, the opportunity cost of the child's school increases with age since older children can earn more wages, which they must forego by going to school.

4.4 Household Income: Poverty affects the likelihood of a child to engage in child labor positively, is a robust finding in economic literature [see, Chaudhary and Khan 2002; Duraisamy 2000; Ahmed 2000] but some findings [see, Canagarajah and Coulombe 1997; Nielson 1998], have found this link to be absent. The role of poverty proxy by household income in determining child-labor decision needs further study. To highlight the key relationship between child labor and household income, we have estimated the percentage of child labor in different household income groups (see table-4). It brings out the fact that the poor households have a higher percentage of child labor compared to those with higher level of prosperity [see, also Duraisamy 2000 for India]. It is also found that 75.45 percent of the households which supply child labor are living below poverty line[3], which corroborates the finding that poverty is one of the major causes of

[3.] Rupees 673.54 per capita per month is adopted as benchmark of Poverty Line, that is estimated by Planning and Development Division, Government of Pakistan, for the Year 2002 [see CRPRID 2002:294].

child labor. While in the overall households in the sample 51.38 percent are living below poverty line.

Table-4. General Child Labor in Different Household Income Groups.

Household Income (Rupees)	Child Labor (Percentage)
Up to 1000	17.04
1001-2000	29.93
2001-3000	30.5
3001-4000	12.69
4001-5000	2.83
5001-6000	1.12
6001-7000	1.12
7001-8000	0.77
More than 8000	1.00

Baland and Robinson [2000] argued that child labor is a device for transferring resources from the future into the present. The parents with currently low level of income engage their children in labor to get some income, making the future of the children less productive. So they transfer comparatively higher future income into lower current income. The other explanation may be that the families with lower income cannot afford schooling expenditures so they send some/all children to work to support the family income. Since the poor households spend the bulk of their income on food, so the income provided by child laborers is critical for their survival.

4.5 Family Size: Family size and fertility is another variable that correlates with child labor. Statistics by a number of studies have shown that bigger is the family, the greater is the likelihood that the children will work and school attendance will therefore decline [Hanushek 1992; Psacharopoulos 1997; Chaudhary and Khan 2002; Powell and Steelman 1993]. We find that majority of the child labor comes from larger families (see, table-5) and there is a positive correlation between family size and child labor. The number of siblings (brothers and sisters of the child labor) in the age group of less than 16 years in the household also plays significant role in the decision of child labor. There is a positive relation between the number of siblings and child labor participation (see, table-6). The larger family size and larger number of siblings represent the vulnerability of the family, as low-income households usually have larger family size and larger number of children. So the population welfare and fertility control policies are significant for elimination of child labor, but it is more important for rural areas and low-income of households.

Table-5. General Child Labor and Household Size.

Household Members	Child Labor (Percentage)
Less than 5	24.26
5-6	26.57
7-8	36.36
9-10	38.67
11-12	3.49
More than 12	Nil

Table-6. General Child Labor and Number of Brothers and Sisters (Under 15 Years of Age).

Number of brothers and sitsers	child labor (percentage)
1	4.86
2	11.11
3	17.36
4	25
5	19.44
6	10.41
7	9.02
8	1.38
9	0.40
10	1.1
Total	100

4.6 Parental Education: Several theoretical contributions on the determinants of child labor emphasize the importance of educating a single generation of parents and its long-term implications for decision-making for future generations. Ray [2000] included the domestic work in the definition of child labor and narrated that raising women's education has a significant negative impact on child labor. Educational status of the parents separately for father and mother of child laborers estimated in the present study is shown in table-7.

Table-7. General Child Labor and Educational Level of Parents.

Level of education	Child Labor (Percentage)	
Illiterate	FATHER'S EDUCATION	82.97
	MOTHER'S EDUCTION	91.48
1-5	FATHER'S EDUCATION	8.5
	MOTHER'S EDUCTION	5.31
6-8	FATHER'S EDUCATION	5.3
	MOTHER'S EDUCTION	1.06
9-10	FATHER'S EDUCATION	1.06
	MOTHER'S EDUCTION	2.12
11-12	FATHER'S EDUCATION	2.12
	MOTHER'S EDUCTION	Nil
13-14	FATHER'S EDUCATION	Nil
	MOTHER'S EDUCTION	Nil

It is found that majority of the child labor come from the illiterate parents [see also, Chaudhary and Khan 2002]. Child labor from the families with only primary level of education of parents is very low as compare to illiterate parents, i.e. only five years education of parents may result in decrease in child labor [see also, Durrant 1998; Duraisamy 2000]. There exists an inverse relation between child labor and parental education. In the policy making adult education needs attention specifically mother's education. Strauss and Thomas [1995] found that level of education overwhelms all other family characteristics for the elimination of child labor. There may be several possible explanations. For example, educated parents have a greater appreciation for the value of education on the other hand uneducated parents simply want to believe that the human-capital decisions made by their own parents were correct.

4.7 Father's Work and Employment Status: It is generally perceived that inability of the poor households to insure themselves against income fluctuations can result in increased child labor. One source of income fluctuation can be unexpected changes in the employment status of household members [see, Jacoby and Skoufias 1997]. Children from unemployed and non-active households are more likely to prone child labor [Blunch and Verner 2000]. The work and employment status of the father estimated by the present study are shown in table-8.

Table-8. General Child Labor and Characteristics of Father and Household.

Characterisitcs of Fathers and Households	Child Labor (Percentage)
Unemployed Fathers	5.32
Economically Non-active Fathers	10.38
Asset-less Households	90.42

We used the broader definition of child labor and found that in rural areas of Pakistan only 5.32 percent of general child labor comes from the households where fathers are unemployed and 10.38 percent comes from the households where fathers are economically inactive. In rural areas there exist the combine family system and there is higher ratio of dependents. So in rural areas economic activity of the fathers does not matter in general child labor. Moreover, in the broader definition of child labor, homecare activity is included which is usually done under social norms so child labor is irrelevant to working status of fathers. Similarly, child labor is non-related to the employment status of fathers. The explanation is that the rural population is facing higher disguised unemployment, lower productivity level, low wages, extended formal sector, and ultimately higher poverty, so despite of work and employment the parents are forced to engage their children in general child labor. In the policy formulation for the elimination of general child labor, increased productivity of labor is needed along with decreased disguised unemployment.

4.8 Household Productive Assets: Household productive assets play an important role in the child-labor decision [Blunch and Verner 2000]. If a household owns assets it is easier for a child to work inside its home than for outside employment, so one may expect more child labor in households with home enterprises. Further it is easier for a child to begin to contribute to household enterprise at an earlier age than for a work outside the home [Durrant 1998]. There are a number of assets that require a complimentary input of labor, and families may expect to get that labor from their children. Thus, a strategy of increasing access to capital markets through provision of assets may not always lower child labor, at least in the short run.

Family assets matter in another way, that is, the rural households with assets can more readily delete the adverse income events. The assets provide the household with the ability to manage uncertainty in income, as a consequence, child labor is not required by the households. Furthermore, families with assets also have more access to capital markets so they can fund a child's education without an informal loan. In each case, either managing uncertainty in income or expanding access to formal capital markets to families who otherwise lack collateral may lead to a reduction in child labor.

Child labor and ownership of productive assets by the households is shown in table-8. It is found that in rural areas a large majority of the child labor comes from the asset-less households [see also, Edmonds and Turk 2000]. The result is attributable to the fact that households with assets are wealthier than households that do not have

assets. They have access to capital market and have smooth flow of income which needs no child labor.

5. Summary of Results

Summary of the survey results is as follows:

- One out of every three households is producing general child labor in rural areas
- Two out of every three households, which have school-age children are producing general child labor in rural areas
- Average age of the child laborers (overall—male and female) is 8.81 years
- Average age of male child laborers is 9.6 years
- Average age of female child laborers is 7.75 years
- Almost half of the sample household is living below poverty line
- Three-forth of the child labor producing households are living below poverty line
- General child labor (broader definition) decreases with age, but participation of children in economic activities increases with age
- Child labor rises with household size and number of siblings (up to 15 years of age) in the household
- In broader definition of child labor girl children are more involved in labor as compare to boys
- Child labor engaged in home-care activity is three times the economically active child labor in rural areas
- Girls are engaged home-care activity almost double than boys
- Majority of the child labor is illiterate or having extremely low level of education
- Majority of the child labor come from low-income households and child labor is inversely proportional to household income
- Working and employment status of the parents do not matter for child labor in rural areas
- Child labor is inversely proportional to the educational level of parents, separately for father and mother
- Majority of the child labor comes from asset less households

References:

Ahmed, Iftikhar. 2000. "Getting Rid of Child Labor" ILO/IPEC Working Paper 2000. ILO/IPEC Geneva. Also in *Economic and Political Weekly 24(27)*.

Baland, Jean-Marie and James A. Robinson. 2000. "Is Child Labor Inefficient?" *Journal of Political Economy 108(4):662-679.*

Basu, Kaushil and Phan Hoang Van. 1998 "Economics of Child Labor" *American Economic Review 88(3).*

Basu, Kaushik. 1999. "Child Labor: Cause, Consequence, and Cure, with Remarks on International Labor Standards" *Journal of Economic Literature 37:1083-1119.*

Bequele, A. and William E. Myers. 1995. "First Things First in Child Labor: Eliminating Work Detrimental of Children" UNICEF and ILO, Geneva.

Blunch, Niels-Hug and Dorte Verner. 2000. "Revisiting the Link Between Poverty and Child Labor: The Ghanaian Experience" Draft, The World Bank, Washington, D.C.

Burki, Abid A. and Lubna Shahnaz. 2001 "The Implications of Household Level Factors for Children's Time Use in Pakistan" Paper presented at International Conference on Child Labor in South Asia, New Delhi, 15-17 October, 2001.

Canagarajah and Harold Coulombe. 1997. "Child Labor and Schooling in Ghana" *Policy Research Working Paper # 1884.* The World Bank, Washington, D.C.

Cartwright, Kimberly and Harry Anthony Patrinos. 1999. "Child Labor in Urban Bolivia" in Grootaert, Christiaan and Harry Anthony Patrinos (eds) The Policy Analysis of Child Labor: A Comparative Study St. Martin Press, New York.

Chaudhary, M. Aslam and Farzana N. Khan. 2002 "Economic and Social Determinants of Child Labor: A Case Study of Dera Ismail Khan. Pakistan" *Lahore Journal of Economics 7(2):15-40.*

Cigno, Alessandro., Furio Camillo Rosati and Zafiris Tzannatos. 2001 "Child Labor Nutrition and Education in Rural India: An Economic Analysis of Parental Choice and Poverty Options" Social Protection Discussion Paper No.0131. The World Bank, Washington, D.C.

CRPRID 2002 Pakistan Human Condition Report 2002. Center for Research on Poverty Reduction and Income Distribution (CRPRID). Islamabad.

Cunningham, H. and P.P. Viazzo. 1996. "Child Labor in Historical Perspective-1800-1985- Case Studies from Europe, Japan and Colombia" International Child Development Center, UNICEF, Florence.

Degraff, Deborah S., Richard E. Bilsborrow and Aljandro N. Herrin. 1993. "The Implications of High Fertility for Children's Time Use in the Philippines" in Cynthia B. Lloyd (ed) Fertility, Family Size, and Structure: Consequences for Families and Children. Population Council, New York.

Duraisamy, Malathy. 2000. "Child Schooling and Child Labor in India" Department of Humanities and Social Sciences, Indian Institute of Technology, Madras.

Durrant, Vaerie L. 1998. "Community Influence on Schooling and Work Activity of Youth in Pakistan" *Pakistan Development Review 37(4):915-937.*

Edmond, Eric and Carrie Turk. 2002. "Child Labor in Transition in Vietnam" Dartmouth College and World Bank, Washington, D.C.

FBS. 1996. "Child Labor Survey 1996" Federal Bureau of Statistics, Govt. of Pakistan, Islamabad.

Ghayur, Sabur. 1997. "Elimination of Child Labor from Exportables: Some Discussion on Understanding the Issues and Evolving a Registration and Certification Mechanism" in Sabur Ghayur (ed) Elimination and Rehabilitation of Child Labor Especially from Exportables Friedrich-Ebert-Stiftung, Islamabad.

Grootaert, Christiaan and Harry A. Patrinos. (eds). 1999. The Policy Analysis of Child Labor: A Comparative Study. St. Martin's Press, New York.

Grootaert, Christiaan and Ravi Kanbur. 1995. "Child Labor" *Policy Research working Paper #1454.* The World Bank, Washington, D.C.

Hanushek, Eric A. 1992. "The Trade-off between Child Quantity and Quality" *Journal of Political Economy 100 (1):647-660.*

Ilahi, Nadeem. 2001. "Children's Work and Schooling: Does Gender Matter? Evidence from Peru LSMS Panel Data" *The Policy Research Report on Gender.* The World Bank, Washington, D.C.

Jacoby, Hanan G. and Emmanuel Skoufias. 1997. "Risk, Financial Markets and Human Capital in a Developing Country" *Review of Economic Studies. 64(3):311-335.*

Jensen, Peter and Helena S. Neilson. 1997. "Child Labor or Schooling Attendance? Evidence from Zambia" *Journal of Population Economics 10:407-424.*

Mason, Andrew D. and Shahid R. Khandker. 1997. "Household Schooling Decision in Tanzania" The World Bank, Washington, D.C. (Processed).

Neilsen, Helena Skyt. 1998. "Child Labor and School Attendance: Two Joint Decisions" *CLS-WP 98-15.* Center for Labor and Social Research, Aarhus, Denmark.

Patrinos, Harry and George Psacharopoulos. 1997. "Family Size, Schooling and Child Labor in Peru: An Empirical Analysis" *Journal of Population Economics 10:387-405.*

Powell, B. and L.C. Steelman. 1993. "The Educational Benefits of Being Spaced Out: Sibship Density and Educational Progress" *American Sociological Review 58:367-381.*

Psacharopoulos, George. 1997. "Child Labor versus Educational Attendance: Some Evidences form Latin America" *Journal of Population Economics 10:377-387.*

Ray, Ranjan. 2000. "Child Labor, Child Schooling, and Their Interaction With Adult Labor: Empirical Evidence for Peru and Pakistan" *World Bank Economic Review 14(2): 347-67.*

Rosenweig, Mark. 1990. "Population, Growth and Capital Investment: Theory and Evidence" *Journal of Political Economy 98(5):38-70.*

Skoufias, Emmaneul. 1993. "Labor Market Opportunities and Interfamily Time Allocation in Rural Households in South Asia" *Journal of Development Economics 40:227-310.*

Skoufias, Emmanual. 1994. "Market Wages, Family Composition and the Time Allocation of Children in Agricultural Households" *Journal of Development Studies 30(25):335-360.*

Strauss, J. and D. Thomas. 1995. "Human Resources: Empirical Modeling of Household and Family Decisions" in J. Behrman and T.N. Strinvasan (eds) Handbook of Development Economics Volume 3, Amsterdam, North-Holland.

Weiner, Myron and Omar Noman. 1995. The Child and State in India and Pakistan Oxford University Press, Pakistan.