CHILD WORK, POVERTY AND UNDERDEVELOPMENT

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Preface

Most children work, in one sense or another. Some of this work involves wage employment; a good deal consists of tasks around the home; much more lies in a statistical limbo, not treated as conventional labour activity but of evident economic and social significance. According to an estimate of the ILO Bureau of Statistics there were 56 million children in employment in the world in 1976 (ILO, 1979c).* Other estimates have suggested that the number is much greater (e.g. ILO, 1979a). Yet the very mention of a figure excites a sense of scepticism. What does it mean? How is it possible to encompass realistically the different aspects of child work in a single number? But if scepticism is entirely warranted, the existing data - unreliable though they may be - are still enough to indicate that the extent of child work is enormous, and it can safely be asserted that the available international data chronically understate the number of children involved in "economic activity".

The measurement of child work cannot be divorced from its economic and social significance. Traditionally, a welfare perspective has been adopted, by which child labour is regarded as an evil to be eliminated. But it is difficult to make a general welfare judgement on the work of children that can be maintained across time and cultures. In many societies, particularly in low-income rural areas, a gradual incorporation of the child into work activity occurs between the ages of about 5 and 15, so that, whether for good or for bad, child work is part of the process of socialisation. Some types of work are a source of pride, status and perhaps independence for the children themselves. The employment of children often also provides an important supplement to the incomes of poor families. But child labour frequently involves diverse forms of exploitation, in which the beneficiaries are members either of another class or of another generation. Two particular aspects of exploitation are relevant to this book: firstly, the extent to which part of the product of workers as a whole (and, among them, children) is expropriated by others; and secondly, the extent to which working children in particular are discriminated

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* In the text, references cited which are of only indirect relevance to child work are given in footnotes; references specifically on child work are noted by author and date, and are listed in full only in the bibliography.

against relative to their abilities and developmental needs. It is equally relevant to consider child work as one form of participation in community life, an intrinsic part of adaptation to and internalisation of adult roles.

But whether exploitative or participative (or indeed both, since the two are not mutually exclusive), child work has potential consequences for mental and physical development, while socially it has implications for the transmission of skills, the evolution of attitudes to work, industrial discipline, class consciousness, and the operation of the labour market. Moreover, child work is liable to influence the social division of labour and the level and pattern of unemployment. As for the causes of child employment and activity patterns generally, they encompass cultural constraints, social relations of production, the industrial and occupational structure, the nature of available technology and, most fundamentally, the extent and nature of poverty.

For a phenomenon with these dimensions, there has been remarkably little critical analysis of the economic activities of children. There exist many careful, often vivid and sometimes horrifying accounts of the work of children at particular times and in particular places. But there have been few analyses of the economic roles of children in the processes of socio-economic transformation and economic development - that is, attempts to understand the causes, functions and consequences of child work, as opposed to descriptions of its manifestations. There are those who would argue that this is unimportant - that child labour is undesirable and must be stopped or regulated by law, so we do not need to analyse its sources systematically. But the very failure of legislation to reduce child labour substantially in much of the world raises basic questions about the effectiveness of a purely legislative approach.

There has of course been a great deal of legislative activity with respect to child labour. The ILO has been active in this field since 1919, and has produced a series of international labour Conventions on particular types of child labour, some of which have been quite widely ratified by member States. The most recent and comprehensive of these is the Minimum Age Convention, 1973 (No. 138). By August 1980, this had been ratified by the following 23 countries:

Country	Year	Minimum age (years)
Cuba	1975	15
Libyan Arab Jamahiriya	1975	18
Romania	1975	16
Costa Rica	1976	15
Finland	1976	15

Germany, Federal Republic of	1976	15
Netherlands	1976	15
Zambia	1976	15
Luxembourg	1977	15
Spain	1977	15
Uruguay	1977	15
Ireland	1978	15
Niger	1978	14
Poland	1978	15
Byelorussian SSR	1979	16
German Democratic Republic	1979	16
Israel	1979	15
Kenya	1979	16
Ukrainian SSR	1979	16
USSR	1979	16
Bulgaria	1980	16
Honduras	1980	14
Norway	1980	15

Although this list may seem rather short, and certainly the countries are unevenly distributed across regions and social systems, it is actually a relatively good performance for an international labour Convention - only two of the 14 conventions adopted between 1966 and 1973 had obtained a higher number of ratifications by mid-1980 (detailed information on the application of this Convention is given in ILO, 1981a and 1981b). Moreover, the vast majority of other countries had national legislation differing in detail and coverage rather than in general objectives. Thus legislation to limit child work is widely viewed as necessary, and indeed the ILO's aim is the gradual elimination of child labour. But there must be a question about the utility and effectiveness of such legislation; on which information is scanty. Applied research is urgently needed to determine whether or not legislation has had much impact on the extent and type of child work. Indeed, effective policy design in general requires an understanding of the roles of children within a broad social framework.

In the light of these issues, several papers on child work were prepared for the ILO and discussed by their authors in Geneva in October 1979. Participants in the discussions, who were social scientists from a variety of disciplines and institutions, considered the major analytical and policy problems posed by the the work of children. In particular, they explored alternative methodologies available for research on the issues associated with child work. This book is the result. It includes nine papers presented to or arising out of the discussion, all focused - in different ways - on the determinants and consequences of child work, conceptual ambiguities, and research techniques for empirical analysis.

The first chapter is a slightly revised version of a paper presented as a general framework for the analysis of child work. It presents a typology of child activities, and considers the main determinants and consequences of child activity patterns at both structural and household levels. It also briefly reviews the potential impact of various policies, and suggests research priorities.

The second chapter is Hull's discussion, based in part on his own fieldwork, of basic conceptual ambiguities and practical problems which empirical research on child work patterns has to overcome, especially where cross-cultural comparability is intended. This is followed by three chapters grounded in specific African situations. Schildkrout shows how child activities relate to the over-all social and economic structure in a traditional urban area of northern Nigeria; Bekombo focuses on the mechanisms of social integration of children in traditional African society and the breakdown of these mechanisms in urban areas; and Morice explores the position of children in the urban informal sector, in the context of the exploitative relations within society as a whole. De la Luz Silva takes a similar context as the framework for a survey of the problems facing research on children in urban Chile. Finally, three papers illustrate different analytical approaches on the basis of work in the Indian subcontinent. Dube considers the cultural and structural economic basis for child work in India; Rosenzweig demonstrates how neo-classical economic techniques can provide insights into child labour supply; and finally, Cain shows, on the basis of data from Bangladesh, the importance of understanding labour market structure for the analysis of child work and demographic behaviour.

The various chapters reflect the views of individual authors and not necessarily the views of other contributors or of the ILO. Indeed, it will be apparent that there are considerable divergences in opinions and conclusions. As was intended, many of the chapters deal with common themes. This has meant a certain amount of repetition, but it also highlights the diverse conceptual and analytical approaches of different authors to the same questions. Such diversity reflects partly the ambiguities still surrounding particular issues, and partly the alternative models and approaches of the various social sciences represented by the authors. These points are particularly apparent with attempts to clarify the meanings of "work" and "child", which are made in most of the chapters. While for all authors chronological age is obviously a major criterion in defining a child, Schildkrout, Bekombo and Dube bring out the importance of socially and biologically defined life-phases with different obligations and behaviour patterns; Morice also argues, in a somewhat different way, for linking age to biological and social structures. De la Luz Silva stresses dependence and need for protection, while Hull notes

that the meaning of chronological age will vary, but considers that for comparative studies it is the main practical yardstick. Similar diversity can be seen in the discussions of "work". Several authors argue the need for detailed identification of objectively definable tasks (Hull, Dube); others stress the social meaning of particular types of "work" (Schildkrout, de la Luz Silva and ourselves in the introductory chapter). Bekombo looks at early work as a form of social participation, whereas Morice is concerned primarily with exploitation. Cain and Rosenzweig both focus primarily on wage labour, but even here the diversity of approaches to labour market analysis is brought out clearly in the contrast between the purely neo-classical treatment of Rosenzweig and the more institutional analysis of Cain. We do not wish to recommend here one approach rather than another - our views can be found in the first chapter. Rather, the researcher should be aware of the multitude of possibilities and problems, and should pick his or her way carefully through the conceptual and definitional maze.

The significance of cultural factors for the nature and extent of child work is emphasised in Dube's historical review and in Bekombo's anthropological analysis, and particularly in Schildkrout's description of an integrated socio-economic system, in which children have important economic and social functions. All of these authors note the response of cultural constraints to economic change, underlining the importance of analysing culture in interaction with its socio-economic environment, and not as an independent, exogenous force. A similar comment could be made about the trade-off between schooling and economic activity, which is discussed to some extent in almost all chapters. It is clear that the provision of more school facilities will have little impact on school attendance in areas where child labour is required to meet the subsistence needs of impoverished families. But it is not only the need for income which obliges children to work rather than attend school. Other factors may be the perceived lack of relevance of school curricula (or lack of economic returns to schooling), or labour relations which prevent children and their parents from opting for school rather than an early introduction to labour force activity.

Another theme which receives attention in several chapters - and it is one which has received much attention in the economic-demographic literature in recent years - is the interrelation between patterns of child work and fertility. Many social scientists have argued that the prevalence of child work tends to raise desired fertility levels, and thus population growth. But, as suggested in Cain's paper in particular, this relationship is by no means simple, and it certainly cannot be presumed that a successful policy to eliminate child labour would lead to lower levels of fertility. Indeed, policies to correct the abuses to which child workers are often prey must be based on a sensitive awareness of the economic roles of

children, and should always be geared to the improvement of living conditions of the children themselves. As Morice, de la Luz Silva and several other contributors bring out forcefully, unless child labour is regarded as a part of a general process of underdevelopment, which has to be tackled by means of more general - or structural - change, the practice of using child workers will continue, on family farms, in small so-called informal sector enterprises, in streetside activities of diverse kinds, and in larger, more formal enterprises. The extent to which this work is exploitative is a matter for research and debate. Cain finds no wage discrimination against children in Bangladesh, relative to their productivity, and Bekombo stresses the participatory aspects of work. On the other hand, Dube and de la Luz Silva argue that various aspects of child work are exploitative, and Morice sets the whole issue of child work within the framework of exploitative production relations. In our view, this issue is a key one which research on child work should address.

An attempt has been made at the end of the book to provide the nucleus of a bibliography on various aspects of child work. While this bibliography is far from complete, especially in languages other than English, it is hoped that it gives a starting point from which those interested can explore the existing body of knowledge. As several authors note, however, in some respects this knowledge is indeed very limited.

Various acknowledgements are due to those who helped in the preparation of this volume. First, all authors put a good deal of work into it, in terms both of their own contribution and of their comments on the other papers. Second, we are grateful to those who participated in the discussions in 1979 - in addition to the authors these included François Breton, Isabelle Deblé, Kailas Doctor, Elias Mendelievich, Krishna Patel, M.T.R.Sarma, Ali Taqi and René Wéry. Third, the able editorial assistance of Liz Hopkins has greatly improved the book, as has her translation from French of the papers by Bekombo and Morice. We are also grateful to Edward Markee for the translation from Spanish of the paper by de la Luz Silva. Fourth, several colleagues, notably René Wéry, Christine Oppong, Peter Richards, Gérard Thirion and S.V. Sethuraman, took the trouble to read and comment on some or all of the papers. Fifth, we are very grateful to Mary Dominguez and Angela Lavender, who between them typed the text rapidly and accurately. Finally, we should acknowledge our debt to the United Nations Fund for Population Activities, which funded the preparation of this volume.

Our main aim in the book has been to raise questions rather than answer them. Perhaps some of the points and illustrations can help in the design of more effective policies for children. But much more needs to be done. It is to be hoped that the issues, questions and suggestions to be found in

the various chapters will encourage others to give far more attention to the economic activities of children than they have traditionally received in debates and policy prescriptions on development.

G.R.
G.S.

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Chapter 1

The Economic Roles of Children: Issues for Analysis

by Gerry Rodgers and Guy Standing

I. Towards a Typology of Child Activity Patterns

To analyse the determinants of children's activity patterns and to explore their implications, it is necessary to devise an appropriate typology of child activities. The lack of such a conceptualisation has greatly contributed to the dearth of information on the economic roles of children. However, the desirable typology depends on the analytical focus of the research. In this chapter we are primarily concerned with interactions between child roles and production structures, the extent and nature of inequality and exploitation, and patterns of household or individual behaviour. The main purpose is to assess the implications of these relationships for personal and social development and welfare. Later sections of the chapter develop these issues in some detail; but it is essential to start by considering the range and nature of child activities.

The major analytical problem in devising a valid typology is that the desirable categories depend crucially on the nature of the social system and prevailing mode of production. That means that certain concepts are irrelevant or inadequate in some environments but essential in others. In particular, the conventional labour force approach by which sharp distinctions are drawn between "economic" and "non-economic" activities is even more unsatisfactory for the analysis of child activity patterns than it is for the analysis of those of adults. Not only is the distinction between "economic" and "non-economic" activity hard to apply in many environments, but it also aggregates analytically separate categories of activity, while frequently distinguishing between activities which have similar social functions. Moreover, such simple distinctions are liable to be misleading guides to actual behaviour when many people are engaged in multiple activity patterns.

The typology suggested in the following paragraphs attempts to distinguish the analytically most important categories of child activity. In so doing, it is intended to facilitate the task of investigating the determinants and impact of child employment, as well as to provide the nucleus of a methodology for data collection.

1. Domestic Work

Cleaning, cooking, child-care and other domestic chores are undertaken by children to some extent in all societies. In general, these tasks tend to be sex-typed, with girls taking a disproportionate share of the total, and in the process internalising the sex-typing of adult roles (see, for example, Zerdoumi, 1968, for a description of this process in Algeria). They comprise an important category of activity to be carefully conceptualised and measured. One difficulty is that some tasks may take place over an extended period, involve rather little effort or active involvement, and be compatible with other activities. This is particularly the case with "child-care", which many surveys have reported as accounting for a significant proportion of the working day of children (see, for example, Mueller, 1979, on Botswana; Mummert, 1979, on Mexico; and studies by Cain and White cited below).

An example of the type of data generated on children's domestic work is the pattern found in a village study in Bangladesh (Cain, 1977a). This study indicated that even young children under 7 years old did about an hour's housework per day, while girls aged 13 to 15 did seven hours a day (table 1). In a somewhat comparable survey in rural Indonesia, the time devoted to housework was much less in the case of girls, and somewhat more in the case of boys (White, 1975; table 2). Such findings suggest that, even in comparable rural societies, the contribution of children to domestic activities may vary markedly. But it also raises the issue of statistical measurement, for a closer inspection of the Indonesia and Bangladesh data reveals that in the former the definition of housework was a little more restrictive, highlighting the pitfalls of interpretation.

Table 1: Hours per day in housework by age group and sex: rural Bangladesh, 1976

Sex	Age					
	4-6	7-9	10-12	13-15	16-21	22-29
Male	0.9	1.1	0.6	0.7	0.7	1.1
Female	1.2	3.7	5.4	7.0	7.8	7.5

Source: Cain (1977a).

Table 2: Hours per day in housework by age group and sex: rural Indonesia, 1972

Sex	Age					
	4-6	7-9	10-12	13-15	16-18	19-29
Male	NA	1.0	1.4	1.4	0.7	0.2
Female	NA	2.6	3.1	4.3	3.0	3.8

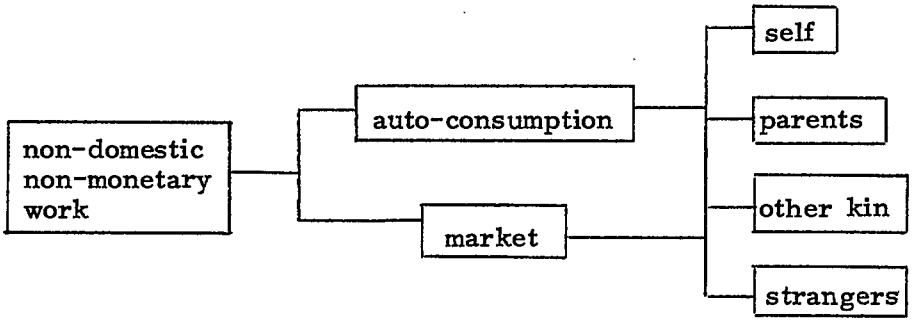
Source: White (1975).

Although hard to identify clearly and measure, the collective category of domestic work deserves to be separated from those activities producing marketable goods and services. In effect it encompasses tasks associated with family and personal services. One purpose in making a distinction between domestic and non-domestic work is to analyse the intra-household division of labour and the process of substitution of different groups in the labour force as the nature of the labour process changes.

2. Non-domestic, Non-monetary Work

This category of work is a major form of child activity in subsistence economies, and encompasses farm work and such tasks as hunting and gathering. Time-use surveys have suggested that in agrarian economies children spend a great deal of time in such activities, particularly those that are highly time-intensive such as tending livestock, protecting crops from birds and animals, weeding, and other tasks associated with subsistence production. Such tasks form a continuum with domestic work, and the attribution of, say, winnowing to this category while treating food preparation as domestic work reflects current conventions rather than a functional distinction.

For analytical purposes, this category of activity could be sub-divided. One should if possible distinguish between work contributing to subsistence production and work contributing to production for the market (though this may be difficult in practice). A differentiation according to the exploitative mechanism involved is also desirable - the child may be working for himself or herself, for or with parents, for kin (e.g. treated as a foster child), or for strangers, the implications being different in each case. Thus we suggest the following breakdown:



A number of rural time-use surveys in Africa cited in Cleave (1974) have shown a common pattern. In a study of a village in Gambia it was found that 75 per cent of the boys and about 50 per cent of the girls aged 11 to 15 did farm work more or less regularly (Haswell, 1953). A survey conducted in south-western Nigeria found considerable farm work being done by children aged 7 to 15, but there was considerable variation by village and by season - in one village, for instance, children worked for about four hours per week over the whole year, in another 16 hours, and in the latter village children worked an average of 45 hours per week in the busiest five weeks of the year (Upton, 1967). In a survey carried out in Rhodesia (now Zambia and Zimbabwe) in 1963-1964, children were recorded as working in farming for about a quarter of the time worked by women, who did somewhat more work than the men (table 3), while paid labourers worked about 9 per cent of total working hours (Johnson, 1965). In a survey of smallholders in two districts of Zambia in 1968-69 it was reported that while children under 8 years old did relatively little farm work they did considerably more off-farm work, and children of both sexes over the age of 8 did a considerable amount of both farm and off-farm work (Elliot, et al, 1970).

A more disaggregated picture of time allocation is given by data from a small farm survey conducted in Uganda in 1965-66 (table 4). Despite data deficiencies, the figures highlight both the intra-household division of labour and the flexibility of the family labour force, with almost all activities being done to some extent by men, women and children (Pudsey, 1967).

Although quantitative evidence is scarce, there is no doubt that children make similar contributions to household production in non-agrarian environments. Urban household production, particularly in trade and services, but also in artisanal manufacturing and the like, offers ample scope for time-intensive work in running errands, fetching and carrying, looking after goods for short periods, marketing domestic produce, and so on - work which may be indirectly highly productive, in

Table 3: Hours worked on a farm: Family members and labourers, Chitowa (Rhodesia), 1963-64

	Annual days per person	Hours per working day	Annual hours per person	Annual hours per family
Men	146	6.2	900	2,157
Women	156	6.6	1,020	3,006
Children (7-15)	42	5.8	242	889
Labourers	226	6.7	1,500	586

Source: Johnson (1965, p. 6).

Table 4: Average hours per year in family work in Kahangi, Toro (Uganda), 1965-66

Activity	15 farmers	22 wives	20 other women	Aged 10-15	
				11 boys	11 girls
Clearing bush	66	4	1	4	4
Cultivation	98	355	274	7	176
On bananas	325	216	132	17	113
Brewing	44	31	25	11	24
On arable crops	213	455	269	26	193
On livestock	290	47	128	820	279
Total farm hours/day*	3.6	3.7	2.7	2.9	2.6

Source: Pudsey (1967), cited in Cleave (1974, p. 49).

* Assuming 307 days available for work per year.

permitting a more efficient allocation of the time of adults. Thus there may be a complementarity between child and adult activities in small-scale production in units based on kinship in small-scale production in units based on kinship (see for instance Schildkrout, 1978a, and Chapter 3 below on urban Kano). In addition, of course, artisanal skills are passed from one generation to the next through the gradual incorporation of the child in the adult activity.

3. Tied or Bonded Labour

"Feudal" and "semi-feudal" modes of exploitation impose labour services of various kinds on peasants and other lower-class groups.[1] As children are often induced to work in the process, this category of activity should be incorporated in any realistic typology. The activities concerned often form part of a set of obligations to a landlord, with children having to contribute a specified amount of work as part of a peasant family's feudal rent. One common arrangement entails children working as unpaid household servants for the landlord, usually for some minimal board and lodging (Marla, 1977). Another common practice is the pledging of children as workers in part-payment of a debt. Indeed, intergenerational bonded labour, with children being bonded virtually for life by the age of 8, has recently been documented by a national survey in India (Marla and Maharaj, 1978; see also Dube, Chapter 7 below). And in most cases the nature of the contract between the exploiting group and the family induced to provide their children's labour makes it hard to assess the full extent of the practice, especially as laws in many countries have ostensibly outlawed it. Thus in India the Children (Pledging of Labour) Act was passed as early as 1933, and amended in 1950 and 1951. Under its regulations parents or guardians were forbidden from pledging their children's labour in return for any payment or benefit. Indeed, all bonded labour was "abolished" by the Bonded Labour System (Abolition) Act, 1976. But few would doubt that such practices have continued, and not only in India.

It should also be noted that certain types of apprenticeship system, discussed below, although not part of a classic feudal system, have implications similar to those of bondage of child labour.

4. Wage Labour

Wage labour is a major type of work activity for children, with analytical implications quite unlike those of domestic or even non-domestic family work. Conceptually, child wage labour should be classified by a series of characteristics. Probably the most basic distinction is between those working as

part of a family labour force and those working as individual wage workers. Wage employment of the youngest children typically involves work as part of a family group; this has often characterised agricultural field labour where it is common for employers to hire a family work-group; as illustrated in a recent ILO report from Argentina (Centre for Labour Studies and Research, in ILO, 1979b). However, similar patterns are possible in manual work in industry - e.g. the case of carpet-making in Pakistan, reported by Hafeez (also in ILO, 1979b), and brick-making, reported by S. Banerjee (1979). In domestic service, a common pattern has involved women taking their daughters as assistants. Another system involves the wage labour of children as domestic servants of distant kin, with the extent of exploitation being inversely related to the closeness of kinship (Oppong, 1975; Dzidzienya, 1978). The "co-exploitation" of children by employers and older relatives is also observed in industrial firms in industrialising economies. A study of Santiago, for instance, noted the very low wages received by children working as assistants to adults in factories and shops (de la Luz Silva, 1978).

Several other classifications are also important: first, those workers on a piece-rate or sharecropping basis should be distinguished from time-rate workers; second, an attempt should be made to distinguish wage employment that involves some training content from that involving no such content; third, "regular" employment should be distinguished from irregular, casual work, and those in permanent, or potentially permanent jobs should be clearly delineated; fourth, some attempt should be made to identify those in illegal wage employment, since this category may well comprise the majority; and fifth, a distinction should be made between wage employment that is essentially complementary to or compatible with schooling and that which is essentially competitive.

Probably child wage labour is more frequent in small than in large industrial enterprises, because the latter can less easily ignore legal restrictions. But confirmation of this is difficult, because of an obvious reluctance to report child employment among employers, parents and children alike. Moreover, there is evidence of the use of child labour in some large enterprises, as in Morocco, where extensive employment of young girls in large carpet factories has been reported (Anti-Slavery Society, 1978).

Another major aspect of child wage labour is the widespread system of apprenticeship contracts. Such employment is often sought by children as a means of labour market entry (Callaway, 1973). But the training content of many apprenticeships is minimal, and in some cases the net effect is to tie child workers for long periods to a highly exploitative system. Many "apprentices" are little more than disguised wage labour, with the added disadvantages of little or no bargaining power,

pitifully low wages, and frequently lack of freedom to take other work. In some industries in Nigeria Callaway's data show that virtually the entire wage labour force consists of apprentices (e.g. leather, 85 per cent), suggesting that the apprenticeship system is merely a means of lowering the wage and increasing control over the workforce. The point is taken up by Morice in Chapter 5 below.

5. Marginal Economic Activities

In addition to activities which can be clearly interpreted as domestic work, unpaid family labour, bonded labour, and wage employment, there is a set of activities widely undertaken by children which do not fit into such categories. They are typically characterised by their irregularity and short-term nature, though some of those individuals practising the activities may do so on a regular, long term basis. Marginal, semi-economic activities of this type include the selling of newspapers; "looking after" cars; shoeshining; selling of sweets and other small items; running of errands; and the sorting of garbage for usable objects. Work of this type is graphically described by de la Luz Silva (1978) for Santiago and Bromley (1978) for Cali, and other accounts are to be found in many places in the literature. The sources of child work of this type lie in the impoverishment of their families, but the children concerned are frequently working independently or on commission. Such work typically does not contribute to capital accumulation, and could be described as the activities of a lumpenproletariat.

In this marginal category should be included theft, prostitution, and other activities which are typically illegal or semi-legal. For some purposes it is useful to distinguish between legitimate and illegitimate marginal activities, but analytically that may not be appropriate because an activity which is illegitimate in one place may be legitimate in another. Another point is that child participation in legitimate street-side marginal activities easily leads to various forms of crime. Prostitution tends to fall in a similar category in many societies, where ambivalent and often hypocritical attitudes lead to its association with crime and semi-legitimate activities. Under such circumstances, impoverishment and unemployment push many very young girls into an early life of prostitution.[2] But prostitution is also widely regarded as a socially acceptable and even relatively well paid form of work. However perceived, it tends to reflect wider patterns of inequality and exploitative social relations.

In Santiago children undertaking marginal activities are often in contact with "delinquent" groups, or with more organised systems of theft and racketeering. Evidence tends to be scarce and qualitative, but this is probably a very widespread

phenomenon in large cities. Desai and Pillai (1972), for instance, note that in Bombay there is a difference in child activities between non-slum areas (where children work in hotels, in canteens, as shoeshine boys, etc.) and slum areas (where the children are "delinquent", "deviant", or "idle"). Bekombo, in Chapter 4, gives some evidence of such patterns in urban Africa.

Analytically, interest in participation in marginal economic activities is primarily due to the need to trace its effect on subsequent behaviour and experience. Empirically, such activities are extremely hard to measure. Anecdotal information is inadequate, as would be the practice of treating them as some sort of residual after all other forms of activity had been measured. Indeed, one criticism of data collection on time-use and activity distribution in general is that there is a tendency to distort reality by omitting "deviant" activities, which are rarely if ever admitted and unlikely to be observed. The consequence is that measured use of time tends to cluster unrealistically around a perceived normal pattern.

6. Schooling

This is an activity that is harder to assess than conventional statistics suggest. Typically census and survey data present children as being "at school" or not at school. But such are the ambiguities that the conventional index of educational attainment, namely "years of schooling", may be thoroughly misleading. In analysing child activity patterns the first distinction is between school enrolment, which in most countries is supposedly compulsory, at least at the primary level, and school attendance. But even the notion of attendance is fraught with difficulties, involving questions of regularity, daily duration and seasonality. In addition to the daily-weekly-yearly time in school, some allowance must be made for time spent in travelling to and from school, and the time required for schooling outside school hours. Moreover, school may well be combined with other activities, which no doubt reflects on the regularity and value of school attendance. For instance, in a survey in rural Chile, 66 per cent of those aged 9 to 15 were said to be attending school full-time, and a further 12 per cent were full-time in economic activity; but 22 per cent were combining school and work.[3]

To conceptualise the activity of schooling adequately it is also necessary to consider the question of the children's ability to learn, not in terms of their native faculties, but in terms of their nutritional-energy levels and access to facilities. Attending a chronically overcrowded, ill-equipped school while suffering from malnutrition or fatigue due to other work is very different from attending small classes in a state of full health. It is also necessary to consider the anticipated duration of

schooling, in terms of attendance through the year and the expected number of years and grades. In many cases school attendance is little more than a token exercise of short duration. Finally, it is important not to confuse schooling with education. Many other activities contribute to education, and some forms of economic activity are among them.

Data on schooling or education are therefore to be handled with care. However, figures such as a 34 per cent school enrolment rate of scheduled caste children aged 6 to 11 in Bihar in 1973 (Sarna, 1975) can only be regarded as low, however they are interpreted. In this case poverty, opportunities for child employment, and a lack of perceived value in schooling (together with reported caste discrimination in school) combine to ensure early drop-out even if there is an initial period of regular school attendance.

7. Idleness and Unemployment

Few children less than 14 years of age are classified as unemployed in conventional labour force statistics, which makes recorded labour force participation rates for, say, 10 to 14 year olds thoroughly misleading. In many low-income countries, especially in urban areas, any realistic measure of the youth unemployment rate would be very high: for unemployment is the only valid way of describing the idleness frequently observed among the young. Out of school at an early age, they have no real income-earning opportunities, though the unemployment they experience is liable to be interspersed with marginal, irregular activities that provide a modicum of income. But the essence of unemployment is the induced sense of passivity, anomie and, if prolonged, surely something like unemployability for many forms of regular employment. This is the crucial difference between unemployment and recreation, which can be depicted as having a beneficial effect.

The vicious circle of poverty and unemployment has often been demonstrated. Thus low nutritional intake, and the consequent energy deficit, are certainly major causes of the widespread inactivity observed in, for example, Indian villages when there is no income-producing work that could be done, and sometimes even when there is. Equally, inadequate physical development leads to young teenagers being unable to secure a niche in the labour market, or it means that having acquired a job, they are unable to maintain the effort demanded and revert to further unemployment. Such unemployment should not be measured by some job-seeking criterion, for discouragement is pervasive. It should be assessed in terms of needs and aspirations, as well as in terms of the lack of alternative options. Some effort should be directed to assessing the extent and form of unemployment among children of school-going age. The practical difficulties in measuring child and youth

unemployment are legion, but that is no excuse for statistics ignoring it altogether.

8. Recreation and Leisure

Recreation or leisure is an essential activity for all age groups and has often been presented as the objective of economic life. For children it is widely regarded as the primary activity along with schooling, which in turn is often ideally presented as combining learning and play. The category of recreation is again more complex than is implied by some discussions, since the socialisation content of any given play activity may be merely facilitating a subsequent lifetime of exploitation, or developing an appropriate attitude to work and social relations, depending on your point of view. Even the separation of play and work is not necessarily easy - Schildkrout, in Chapter 3 below, gives some examples of the difficulties from urban Nigeria. If the intention is to analyse the effects of child activity patterns on subsequent social and economic behaviour, and to analyse the function of those activity patterns in the prevailing socio-economic system, this issue has to be faced.

9. Reproductive Activities

To make the typology comprehensive in terms of time allocation, there should be a separate category embracing physiological activities, the most important in terms of time being sleep. Time taken or available for other reproductive activities, such as eating or cleaning and related personal care, should also be included in this category and be separated from recreation and from household work.

* * *

Clearly, these various activities are not mutually incompatible, and various combinations will exist. In some cases, one activity will dominate, as in the case of girls engaged for seven or eight hours a day in domestic work. In other cases, time will be divided - children in the urban slums, for instance, may divide their time between domestic work, marginal and illegitimate activities, schooling and idleness. It is useful to develop "stereotypes" of frequently recurring activity patterns. There will be many such stereotypes corresponding to different socio-economic settings, though there will of course be many children who cannot be readily classified in any given stereotype. The development of a statistical method for combining stereotypes with the typology for activities seems a necessary task in the

analysis of child employment and its relationship to the socio-economic structure. One activity may of course imply another; a case in point is travel, an important use of time and energy in most low-income countries, and one that is not explicitly distinguished in the proposed typology.

One evident aspect of child activity patterns is their demographic variation, notably with respect to age, sex, and family structure. Several of the rural time-allocation studies cited earlier give evidence on this (Cain, 1977a; Mueller, 1979; White, 1975). Wage and other types of non-household labour are usually sharply differentiated by age, but even in peasant agriculture age specialisation is common. Sex-specialisation is equally widespread, usually with a progression towards the conventional adult activities of the child's sex (but see Section IV.).

In urban areas, the progressive integration of children into adult activities may also occur in household production. Apprenticeship systems sometimes serve that function, though as we have noted they may merely be disguised forms of exploitation. However, the entry of children to non-domestic economic activity is both more generally necessary and more difficult than in rural areas. Commonly children drift out of school, and, between the age of about 8 and 12 or 14, drift into marginal economic activities, leading to a working life of intermittent labour force activity and unemployment.

A final comment is worth making on the implications of this typology for data collection. Clearly, the appropriate data collection technique is some sort of time-use survey. However, the implementation of such a survey requires an appreciation of the activities comprising the crucial alternative uses of time and energy. For children the focus should be on the annual distribution of time to different activities, as well as on the relationship of current and past activity patterns to subsequent behaviour, experience and status. Accordingly, time-use data related to a specific day or even week would have little analytical value, and may indeed be quite misleading. Moreover, it is not only time devoted to particular activities that matters. It is also necessary to consider the effort expended and the intensity of time use, issues which are far harder to conceptualise or measure, but which are crucial for the analysis of the implications of different activity patterns. And even time, effort and intensity are not necessarily sufficient to identify the structural social context - yet this is critical for understanding the nature, sources and consequences of different types of child activities.

II. Structural Socio-economic Determinants of Child Employment

1. Modes of Production: Situations and Transitions

Among the structural influences on the extent and nature of the economic roles of children in low-income countries, two sets of factors can be identified: first, the mode of production; and second, the associated structure of the labour market. Briefly, by a mode of production is meant a specific set of social relations of production and distribution combined with a related development of the forces of production. It can be expected that the economic roles of children will vary systematically according to the nature of the mode of production, and that these roles will undergo systematic change in the transition from one mode of production to another. Several such transitions are possible, but the one of most immediate relevance to current patterns of development in low-income countries concerns the transition from various types of what are usually called "pre-capitalist" modes to a capitalist mode of production. In the following, therefore, most reference is made to this type of change. Other transitions, notably towards various types of socialism, are little discussed in the present chapter. Any complete analysis of the economic roles of children, and particularly of policy towards children, would have to remedy this omission.

(a) The role of children in agrarian societies

In technologically primitive, pastoral, or hunting-and-gathering societies almost all those capable of contributing to the daily and annual cycles of survival and social cohesion do so, although in such societies the amount of daily work is often remarkably small.[4] The social division of labour is therefore limited and related to age, sex, and personal capacities. There is a tendency for "prime-age" adults to take primary responsibility for those activities involving relatively effort-intensive tasks, while children, and (to the extent that they are present) the elderly, take the more time-intensive tasks. But to call these high and low productivity activities respectively would be somewhat misleading, since the very complementarity of the various tasks makes such distinctions dubious. If there is a general rule governing the division of labour, it might be that distance of the site of the activity from the site of residence determines the relative probability of different age groups participating in the activity in question, but this is at most an hypothesis.

Despite low levels of work, and the correspondingly large amount of time devoted to "rest" and social leisure activities, exploitative relations have existed in such societies, whether

relations of production correspond to the independent peasant family model of Chayanov[5] or to the lineage mode of production recently presented as characteristic of large parts of Africa, in which identifiable groups receive surplus product from the direct producers. Perhaps the most common form of exploitation in the latter type of society is based on age, involving the socially sanctioned relationships between communal elders and youths.[6] In such cases tributary labour services are performed by the younger members of the compound or village community for the elders. Another common feature is debt bondage in various guises, arising typically from the exercise of judicial powers by the elders. Where adults have been put into debt, it is a common practice for elders to take a child or other young relative as a servant until the debt has been paid off.[7] The prevalence of such practices is impossible to estimate, but exploitation of this type is almost certainly widespread, albeit difficult to quantify, and - according to Bekombo, in Chapter 4 below - also hard to conceptualise adequately. While it is particularly characteristic of many rural areas, there is also evidence of similar relationships in urban areas. A case in point is the use of children of distantly related kin as domestic servants in urban Ghana (Dzidzienya, 1978).

In a peasant family production system, whether or not there is significant inequality between production units, there may be considerable intra-household exploitation, similarly based on socially sanctioned age, sex or kin relationships.[8] For instance, in parts of Africa residential units consist of compounds in which systems of duolocal or parallel residence have meant children living apart from one or both parents. In such circumstances the pressure for children to be integrated into the productive system must be considerable. Systems of fostering of children by non-parental kin, as among the Hausa in Nigeria, have meant that one way or another a substantial proportion of children have lived apart from kin. But even in rural areas of many Asian countries, where family residence is more typical, children are viewed essentially as producers. Although the conventional model is one of parents "investing" in children in order to be assured of support in their old age, another model may fit at least as well - of parents producing labour power, to be set to work and exploited at as early an age as possible.

Historically, where there has been a growth of feudal relations of production there has been an increase in work intensity and exploitation, as feudal obligations have systematically transferred surplus product from peasants to landlords or other beneficiary classes. The classic feudal relationship involves peasant families providing labour services to landlords or their ilk, often including specific obligations to bodies such as religious organisations, or local political and judicial

authorities.[9] Commonly children have had to contribute, and indeed in many cases there is evidence of feudal rent being calculated on the assumption that all members of peasant families would work. There is even anecdotal evidence of peasants with relatively large families being taken as tenants in place of those with a smaller capacity to provide such rental services; even if rents were calculated as a percentage of output, the landlord would gain from the latter practice. Typically the children would be expected to work under the immediate direction of their parents. And while this conjures up a picture of members of peasant families working alongside one another in the fields, it can also apply to certain types of domestic and craft work. It is a particularly common feature of sharecropping arrangements. Dube in Chapter 7 documents certain practices of this type.

With the pattern of work sharing and steady assimilation of children to more adult tasks and obligations, the role of schooling in such pre-capitalist economies is minimal, its socialisation function almost certainly not required and its provision of literacy or related skills scarcely in the interests of the dominant groups. As for the peasant families themselves, continuing rental obligations are likely to force them to employ all their domestic labour resources, while the potential return to what little schooling has been made available is negligible. Indeed, the net return to schooling might even be negative, in that the skills the peasants need for survival are those gained in work rather than through schooling.

Of course, there have been many variants of "feudal" relations. In some countries, peasants have been tied into what might be described as semi-feudal relations of production, in which peasant-worker families are exploited through various rental and wage obligations relying on non-market power. Thus, one or more family members may be working for a wage that is less than the cost of reproducing their or their family's labour power. They can do so only because of the subsistence contribution of other family members. Debt is the most common mechanism for enforcing such patterns of behaviour. In some such cases, especially where children are involved, little or no wage is paid. Thus in India children of peasant or bonded labour families have often been put out or pledged as servants and labourers in the households of richer peasants and landlords in lieu of debt repayment (Marla and Maharaj, 1978). In other cases the family has been able to meet its obligations to landlords only through some member migrating temporarily to earn the necessary income. Though usually involving young men or women, there are many cases of teenage or even preteenage children being sent to work for long hours in poor conditions and for meagre wages.

(b) Transitions to industrial capitalism

The growth of capitalist relations of production in many parts of the world has been associated with a set of interrelated phenomena - an increase in industrial production, a shift to cash-crop farming and a general commercialisation of agriculture, the growth of a landless population, migration and urbanisation, the progressive monetisation of domestic activities, and a growth of unemployment in its various forms. With the growth of wage labour, the increasing division of labour has been associated with various types of labour market segmentation. And in place of primitive, subsistence-oriented skills the emphasis has been placed on specific labour market skills associated with on-the-job training, literacy and schooling. Not all these changes are occurring everywhere, and there are conspicuous examples of countries following different types of development paths. But patterns of this type recur frequently. Since they clearly generate changes in the economic role of children, it is essential to examine the more important effects of such changes.

The growth of wage labour and capitalist relations of production has been associated, in the industrialised countries, with a long-run decline in child employment. But in the early stages children were used in many guises to further capital accumulation and intensify exploitation. Thus in the early part of the Industrial Revolution in the United Kingdom agricultural employers commonly hired whole families for a "family wage", based on the expected output of the different family members. As a result of the task-work wage system, single men and old men whose children had grown up found it difficult to obtain employment (Pinchbeck, 1930, p. 101). Indeed, one conclusion of a famous report on women and children in agriculture in 1843 was that men feared children's employment more than women's, because a boy "worked more regularly, and he at once brought down the price of labour and made it more difficult to obtain employment". Such situations were by no means reserved to the agricultural labour market.

In most low-income countries today large industrial firms and other sizeable capitalist enterprises do not seem to make extensive use of child labour, perhaps because of the need to respect legislation, or possibly because adult and youth labour is in ample supply to regular jobs. However, at least one exception was noted earlier, and the extent of child employment is probably much greater than official statistics suggest because of the obvious incentive to under-report child labour. In small manufacturing enterprises children are used as cheap, "sweated" labour, frequently working alongside older relatives and possibly not paid directly but indirectly through a "supplementary wage" paid to the parent worker. Such practices have been reported from Chile (de la Luz Silva, 1978), Pakistan

(Hafeez, in ILO, 1979b), and Jamaica (Standing, 1978a), among others. In all such cases the employment of relatively cheap child labour has helped to accelerate the process of capital accumulation by raising the over-all rate of exploitation. Child employment can also contribute indirectly to exploitation by introducing a relatively easily disciplined segment of a nascent proletariat, thereby forcing adult workers into greater labour commitment, in addition to directly substituting cheap labour for workers with higher wage expectations.

The substitution of capitalist for feudal and semi-feudal relations of production is strongly felt in rural areas. Where urban wage employment grows, or where rural families require wage income to pay taxes or to purchase new or newly monetised commodities, youths often young children are encouraged to leave the rural domestic production unit, notably the peasant farm. Several Indian studies have traced large numbers of "runaway" child workers, many being below 10 years old (Kapadai and Pillai, 1971; Gangrade, 1979). Where the farming system is dominated by male workers, as in Latin America and the Caribbean, there has been a considerable out-migration of girls and young women, often very young teenagers. In many other countries - and in most rural areas experiencing an expansion of wage employment generally - young men have been the first to shift into the wage labour market, whether or not this has involved migration. In such cases women and children have usually been required to perform more of the domestic income-earning and agricultural work. In Africa and the Middle East, for example, surveys have repeatedly shown this pattern of adaptation. In Egypt a rural employment survey in 1964-65, undertaken by the INP (Cairo) and the ILO, recorded that children (aged 6 to 15), and to a lesser extent women, were hired by small-scale farmers to do the cotton picking and weeding so that the men could take higher-paying, non-agricultural seasonal work (Hansen, 1969).

Another correlate of the growth of capitalist relations is increasing landlessness, itself usually the precursor of the growth of a rural proletariat, and closely associated with rural class differentiation.

With such changes the social division of labour is modified, in that the children of the landless or near landless are forced into the labour market to a greater extent than is typically the case for any social category of children where class differentiation is less advanced. Labour force participation of children from poor and medium strata of peasants is likely to be particularly high because the pressure of subsistence requirements remains considerable, while the possibilities for work are increased by small-scale ownership of means of production. However, evidence on these relationships is mixed. In Bangladesh, Cain found little difference in over-all child "productive" work-time between the landless and small landowners

(Cain, 1977a, also Chapter 9 below). Child work among large landowners was also similar for children up to the age of 12, but was distinctly lower beyond that up to the age of 21, probably reflecting full-time secondary school attendance. Mueller in Botswana found the non-linear relationship expected (child labour supply highest at intermediate land ownership levels) but statistical reliability was low (Mueller, 1979). Rosenzweig and Evenson (1977), using aggregate data, found child labour supply in India to be positively associated with land holding and negatively with wage levels; however, there were no strong income effects on school enrolment. But in Rosenzweig's paper in this volume (Chapter 8), using a micro-data set, these relationships are not reproduced - indeed, the results are almost the reverse of those in the earlier paper. This highlights the difficulty of replicating research findings, and underlines the dearth of reliable empirical research.

2. Unemployment, Poverty and the Labour Market

With the growth of capitalist relations of production the structure of labour demand and labour utilisation is radically changed. Increasing proletarianisation is associated with the growth of labour market segmentation, by which the labour force is separated into submarkets with different employment conditions and wages.[10] This helps raise the rate of exploitation by reducing class unity and weakening bargaining power, allowing relatively strong groups of workers to improve their working conditions without all workers benefiting. One common result is the creation of a "labour aristocracy", whereby high wages are maintained for small numbers of workers despite considerable excess labour supply.

Children can affect and be affected by this type of labour market in many different ways. Most crucially, their availability may permit employers to rely on a particularly intensely exploited group of workers. Unorganised, with low dependency rates, a need for income, and vulnerable by nature of their age, children are more readily exploited than other labour groups. As argued in Section I.4, many so-called apprenticeship schemes have been little more than devices for concealing this type of labour. The use of child workers, nominally as apprentices, helps to reinforce labour market segmentation. At the same time, by permitting children to enter the fully-fledged labour force through a clear, if limited, career structure, such a system induces greater labour force commitment on their part and indirectly increases the over-all level of commitment to wage labour.

The employment of children also puts indirect pressure on wage rates. Where adult wages are determined by conventional subsistence criteria, child work reduces the wage required for subsistence (or the reproduction of the labour force) and

thereby permits increased exploitation.

Segmentation is also a means of stratifying the labour force. Higher-status, higher-paid jobs are differentiated from the mass of unskilled work. And, in general, career paths do not lead vertically through segments. Access to the high-level jobs is largely determined by the entry point to the system, not by performance at lower levels. A screening process, based on educational and social qualifications, ensures that higher-level jobs are effectively excluded by the performance of child labour, which tends to be incompatible with the acquisition of the necessary educational qualifications. Thus a contradiction emerges between the formal educational system - preparing children for clerical, managerial and related jobs - and the opportunities for unskilled child labour, increasing incipient class consciousness and accentuating the divergence in class interests and attitudes.

This issue of schooling and its functions is clearly critical for analysing the joint processes of differentiation in the labour market and the distribution of child activity between schooling and labour. The role of schooling in non-industrial economies is negligible except among tiny élites. But the growth of a wage labour market, particularly for manufacturing and clerical jobs, greatly increases its significance. In many low-income economies, schooling can be seen to have two functions, that of socialisation and inculcating a commitment to stable wage labour, and that of providing the nucleus of labour market skills. In almost all labour markets, schooling is a means of selecting workers, schooling credentials being a signal not only of a capacity to acquire technical skills but also of a malleability to the concentrated discipline of wage jobs.

Differentiation in job access associated with schooling is paralleled by differentiation in access to schooling itself. In rural areas, the growth of a subclass of capitalist farmers tends to promote educational differentiation, as these relatively prosperous farmers substitute hired for family labour, thereby reducing the pressure on their children to substitute economic activity for schooling. At the same time, the increasing use of hired labour draws more adults and sometimes children into the labour market. Even where children are not directly hired, their work levels are likely to increase if they have to substitute for those who have started working outside the domestic unit of production. There are similar effects where the household "head" migrates in search of employment, either seasonally or for longer periods, as is widely observed in Africa and Latin America (UNICEF, 1970). In any case, impoverished, landless families can rarely afford the direct costs of schooling, and see little benefit from making major sacrifices in order to permit children to attend school. In addition, the very experience of poverty is likely to induce a set of fatalistic attitudes and behavioural attributes inimical to regular and useful school

attendance. The outcome is differential access to schooling across social groups, reflected in differential enrolment rates. An example from India gives enrolment rates varying from 43 per cent among the landless to 75 per cent among larger cultivators (Government of India, 1965).

A similar differentiation can be observed in urban areas. Drop-out from school among the urban poor is associated with the low perceived advantage from schooling, its high direct and indirect cost, as well as the pressing need for the income children might be able to earn (Bekombo, in Chapter 4 below). The urban bourgeoisie, including civil servants and other administrative workers, face no such constraints. They can therefore at least partially control both the supply of and the demand for qualified workers. In such circumstances it is almost useless trying to impose a system of compulsory school enrolment and attendance; the problem is structural.

Thus the growth of a labour market, and particularly of jobs requiring literacy, makes schooling an increasingly important determinant of labour market entry and subsequent career patterns. But while lack of schooling makes access to attractive segments of the labour market unlikely, the inverse does not necessarily hold. Rising qualifications are required for access to specific rungs of the job ladder, and while this has been associated with higher average schooling levels in the labour force, the increasing capacity of the formal education systems of most low-income countries has also been associated with more educated unemployment.[11] In consequence, an analysis of schooling and the labour force activity of children and youths would be incomplete if it were not set in the more general context of labour market structure and levels of unemployment.

The drift to urban areas in the early stages of capitalist industrialisation is usually associated with widespread unemployment. Whether or not children in peasant-type economies progress by stages into the adult labour force, no such easy process of assimilation is found in urban environments. In most low-income industrialising countries urban unemployment levels are persistently and even chronically high, in some cases conservatively reaching 20 to 25 per cent. In addition, many workers are forced to eke out an existence of casual employment interspersed with long periods of unemployment and economic inactivity. The highest rates of open unemployment - despite the statistical ambiguities associated with such measures - are observed among teenagers. In Latin American and Caribbean cities, for instance, youth unemployment rates as high as 40 to 50 per cent have been recorded. Such figures have to be treated cautiously, as there is a tendency for the denominator to be artificially deflated by labour force withdrawal among teenagers. But there is no denying the enormity of the phenomenon.

High levels of unemployment have two opposite effects on activity patterns corresponding to the much analysed "discouraged worker" and "additional worker" effects (Standing, 1978b, Chapter 5). In the case of the young the net effect of high over-all unemployment on labour force participation is particularly hard to assess. Among the "discouraged worker" effects, there is the tendency for teenagers to drift out of the labour force into crime. Many girls are forced to take up prostitution as almost the only means of survival, the number involved sometimes being strikingly high (Bamberger, 1973, p. 3). Some case studies from Santiago are discussed by de la Luz Silva in Chapter 6. Occasional paid sexual relationships may or may not be regarded as prostitution: one recent study of girls from rural elementary schools in Ghana estimated that 61.6 per cent of those who had boyfriends did so primarily to get money (Akuffo, 1978, p.7), without this involving any social disapproval.[12] But typically child prostitution is demeaning and oppressive, often involving virtual imprisonment (for example in Thailand, see Banerjee, 1981, p. 36).

On the demand side of the labour market, high unemployment can lead to a substitution of older for younger workers in many wage jobs, which may then be formalised by worker organisations encouraging employers and governments to impose minimum age restrictions on hiring practices. High levels of unemployment facilitate the growth of labour market segmentation, making some jobs the preserve of particular categories of workers, while more marginal groups such as children and the elderly are restricted to the least stable and lowest paid jobs. This in itself may weaken their attachment to the labour force.

One form of discouragement of young workers is worth emphasising. In several industrialised and industrialising countries - for instance Colombia (Walter, 1970) - high youth unemployment has encouraged teenagers with intermediate educational qualifications to stay in or return to schooling. The most discussed case is that of Indian youth. There is little doubt that the bleak job prospects of those with poor educational credentials have induced many young Indians to pursue successively higher levels of schooling,[13] especially in lower middle-class families where perception of the returns to schooling is strong but control over labour market access is weak. Elsewhere, teenagers attending primary or secondary school have been induced to pursue more schooling for the same reason. What is particularly interesting is that the process may produce a non-linear relationship between age and labour force participation. Thus children and teenagers who leave school and enter the labour force before the age of 15 find themselves unqualified to obtain anything but casual low-income forms of work. After a period spent in dispiriting unemployment, some of them return to school or resort to informal

schooling to seek the credentials needed for wage employment. In Kingston, Jamaica, where this phenomenon has been common, the return to school has proved largely unsuccessful (Standing, 1978a), but its effect has been that teenagers have withdrawn wholly or partially from the labour force following initial discouragement.

The reason many of these teenagers or children enter the labour force initially is that the poverty or unemployment of their parents or parent obliges them to become secondary workers. For certain casual forms of work, and for such quasi-economic activities as begging-with-services, children may well have a higher opportunity income than adults. Indeed, whereas high unemployment has a strong discouragement effect on the urban labour force participation rate of teenagers, it is likely that there is often a net additional worker effect for children under the age of about 12.

Much of the employment of children aged 12 or less, other than within the household or as domestic servants, occurs in small enterprises for which they constitute by far the cheapest form of labour for unskilled jobs not requiring heavy labour, such as providing sales assistance, running errands, or helping in various tasks. Those who cannot obtain even these types of jobs turn to marginal, legitimate or illegitimate activities or end up unemployed. The search by children for income-earning opportunities is typically part of a family survival strategy - a response to extreme poverty, or to major household crises (e.g. death, departure or unemployment of principal income-earner). When households rely for survival only on their own labour, and especially where the work available is irregular, casual, and poorly paid, there is an obvious need to mobilise all family labour resources. In this, wage-labour households are no different from the peasant or artisan household which mobilises domestic labour for production; the difference lies in the greater difficulty faced by urban working-class households in finding jobs. Failure accelerates the drift into poverty, idleness, and illegitimate activities. For undesirable as this form of child labour is from the perspective of ILO labour standards, or of the macro-economist analysing its contribution to an exploitative system, it may be viewed somewhat differently by the children concerned, and even more so by their families, to whom the bulk of the income is likely to be transferred.

Thus while discouragement is likely to be widespread, the need for child labour is almost certain to mean that high levels of adult unemployment and widespread poverty push children into the labour market.

III. Cultural and Behavioural Aspects of Child Activity Patterns

In addition to structural socio-economic factors, at least two sets of determinants of child work should be considered: (1) the social and cultural framework - attitudes to children and their roles, cultural constraints, and the social institutions which govern the processes of acculturation and socialisation; and (2) the nature of decision-making at the household or other micro-unit level, and the employment of children as an outcome of the trade-offs between alternatives in economic behaviour.

1. The Social and Cultural Framework

Child employment not only reflects economic processes but depends on normative attitudes towards children in society, the culturally determined roles and functions of children, the values by which the activities of children are judged, and the nature of socialisation processes. In most of Europe, there is general disapproval of formal labour force participation of children below the age of 14 or so; on the other hand, participation of children in housework is approved, by parents at least (though the extent to which the attitude is sex-differentiated varies from one class and country to another). Elsewhere, by contrast, participation in various types of economic activity from an early age is considered an essential part of socialisation (Oppong, 1973; Schildkrout, 1978a, and Bekombo, Chapter 4 below).

The process of socialisation, and the cultural objectives to which it responds, are clearly interdependent with the structural economic system within which socialisation occurs. There is much debate about whether cultural values are the causes or consequences of economic needs. Kozak (1978), surveying some of the literature on child socialisation, argues strongly that economic needs are the basic causes. In his model, the nature of the child's socialisation is associated with the class position of his or her parents. Personality development, role acceptance, and the internalisation of social norms are thereby transmitted in a way which reflects and perpetuates the existing stratification of society. The basic argument is convincing; but to treat culture only as a dependent variable is too extreme. One comment on Kozak's model is that in so far as economic changes generate lifetime experiences for individuals which differ from those of their parents, conditioning will be imperfect. There is therefore a lag in the transmission of cultural values behind the needs of the economic system. This suggests that cultural variables tend to slow the process of economic change. There are also independent effects of any given cultural heritage which affect the nature of economic change, as well as its pace. Thus while many aspects of

culture, and its internalisation by children, may be conditioned by the needs of the economic system, this does not permit us to neglect the independent effects of the socio-cultural framework.

The effects of the prevailing modes of domestic organisation and of the system of kinship and marriage are a case in point. Their related sets of rights and obligations clearly influence the development of child activities. In some contexts delegation of aspects of parental roles, and the institutionalised practice of fostering of children by non-parental kin, involve widespread transfers of the obligations to train and maintain children, and the rights to enjoy the services of the young. Such practices may involve an element of apprenticeship and specialist training, as among the Dagomba of West Africa (Oppong, 1973). There is evidence that such practices in peasant settings do not necessarily entail any material or emotional changes in the kinds and content of relationships established with parental figures. Foster children and own children may be treated with just the same kind of care and attention.[14] A broadly based family with a wide and complex obligation structure may nevertheless imply a greater variety of child activities, merely because it presents a wider range of options and obligations. In such family systems socialisation occurs largely through contact with the economic activities of kin, while reciprocal obligations induce the child to start many of these activities at an early age. Independence is attained late, if at all, and activities continue to be regulated by the needs and possibilities of the family.

By contrast, kinship systems in which the nuclear family is functionally individuated and residentially isolated, and in which parental and filial rights and obligations are not shared, may provide a less flexible and less secure system. They provide an economic and social framework to support the child through a formal education process, and perhaps also through initial labour market entry, before the child becomes independent. The obligation network is narrower, as are the possibilities for child work. Provided that household income is adequate for perceived household needs, child labour supply will be lower. However, there are fewer or no available substitutes in case of crisis. Death or incapacity of a parent will lead to single parents attempting to supply a range of conflicting needs of children. In such cases, very high child employment rates are probable, whereas in more broadly based family structures, kin obligations provide an alternative source of subsistence.

Another example of the independent effects of socio-cultural variables is the attribution of sex roles among children. Some aspects of these roles clearly consist of preparation for the adult sexual division of labour. Thus it seems almost universal that child-care and housework fall more to girls than to boys, in keeping with the traditional view of the domestic

role of women. However, there is much more variability in the extent to which girls work outside the home, which cannot be fully explained by socio-economic factors. For instance, Islamic traditions arguably restrict female labour force participation rates, and indeed, among Arab countries the prevalence of restrictions on female activity, presumably reflecting cultural orthodoxy rather than economic needs, is statistically associated with lower female labour supply.[15] The net effect is that at puberty a decline in girls' extra-domestic activity is frequently observed, while for boys the reverse is the case. Schildkrout's contribution to this volume documents similar tendencies in Kano, where children have roles which contribute to the maintenance of the adult division of labour. They undertake many fetching and carrying chores which would otherwise fall to women, but which would be incompatible with the institution of purdah.

So with respect to both family structure and sex roles, cultural factors have an independent effect. But their influence should not be exaggerated. There is much evidence that family structure changes in response to economic needs, however slowly; this is brought out by Goode (1963), in his classic analysis of changing family patterns. Even the role of women in Islamic countries is not immutable - Hansen (1969) reports that in the Delta region of Egypt, where agricultural labour needs are relatively high, women work outside the home much more than do women in Upper Egypt where labour demand is lower. In short, any examination of cultural variables has to consider their interaction with structural economic phenomena.

At a broader level, the roles of children are associated with the values attached to children by parents, with the images of the future which parents perceive, and with the objectives underlying particular levels of fertility. Several "value of children" studies have explored the psychological factors underlying fertility. Though many factors are cited by parents as reasons for having children, the work of children, domestic or otherwise, recurs frequently. In the Philippines, for instance, among the reasons the "financial contribution" of children was cited by 39 per cent of households, "help in housework" by 42 per cent. The latter figure rose to 71 per cent for daughters, the former figure to 54 per cent for sons in rural areas (Bulatao, 1975). The implication is that parents see the "production" of children as a means of adding to the household labour force. However, in the conventional jargon, children are also viewed as if they were "consumption goods", providing happiness, companionship, and psychological benefits. The balance of these different objectives, and their social respectability, determine to a great extent parental attitudes to their children, and the nature of their socialisation.

2. Micro-behavioural Determinants

The pattern of child activities reflects choices among a limited number of alternative possibilities, the latter being defined by the socio-economic, cultural and legal context. A widespread practice is to analyse these choices as deriving from a complex decision-making process by a composite unit such as a "household" or "family". Indeed, many recent empirical analyses of child activity patterns have been concerned with the household as an optimising, rational decision-making unit, in which children are depicted as both consumption and investment "goods" (Willis, 1973; Schultz, 1974). This neo-classical approach, known popularly as the "new home economics", also depicts the determinants of fertility in terms of the relative utilities of children and other goods or services, with children involving the investment of time and income.

Applications of this model to the determinants of child employment tend to focus on the trade-off between time devoted to schooling and labour force activity. The neo-classical model represents parents as choosing between "quantity" and "quality" of children; if they have more children they cannot afford to invest as much in the quality, or in practical terms schooling, of their children. If we neglect the "consumer good" aspect of children, this quality-quantity trade-off maps directly on to a child labour force activity relationship. At least three factors are directly involved: (i) the opportunity cost of schooling, which mainly concerns the returns to child labour; (ii) the returns to schooling, in terms of the effects on the potential wage (and the share of parents in the wage); and (iii) life expectancy of children. High mortality, by reducing the expected duration of a child's work activity, reduces the returns to schooling, and therefore makes early child labour force activity more likely. This in turn reduces the expected investment cost of children and increases the probability of high fertility. Indeed, many economic analyses of fertility have made fertility a positive function, inter alia, of the opportunities for child employment. Analogously, if there is effective compulsory school enrolment and attendance over a wide age range, then the costs of children in terms of schooling and related factors, and in terms of income forgone, will be relatively high, making the desired number of children correspondingly smaller.

Complex micro-behavioural functions can be formulated for child labour force participation. This is not the place to propose any particular model. However, it may be helpful to review the major stages of analysis implied by the construction of such a model. Firstly, and most abstractly, the probability of labour force participation, p(L), can be depicted as

$$p(L) = f(A,I,d^*,Z) \qquad \ldots 1$$

where A is the cost of economic activity, I the gains from that activity, d* the demand or perceived need for income, and Z represents the series of socio-economic, legal and cultural constraints discussed in previous sections. L might be regarded as a vector of alternative activities, along the lines of the typology in Section I, in which case corresponding vectors would have to be defined for the independent variables. More commonly, however, the simpler approach is adopted of classifying certain activities as labour force participation, and analysing a dichotomous dependent variable. In the latter case, the partial derivatives of A, I and d* are negative, positive and positive, respectively. This formulation is of course trite, in the sense that it merely says that children participate in the labour force according to the advantages and disadvantages of doing so. More theoretical content is implied when we consider the determinants of A, I and d* (and of course Z, but this we have treated qualitatively above).

$$A = g_1(y^*,c_h,c_n,c_d,c_p,c_r,c_u \ldots) \qquad \ldots 2$$

The major determinants of A can be fairly easily described, although measurement is often difficult. Firstly, y* is the present value of the expected net income stream differential associated with foregone schooling. Secondly, c_h is the cost of activity in terms of the effect on the health of the child. To the extent that the work endangers the child's health, or leaves him or her debilitated and incapable of learning or developing manual or mental strength, A will be raised. Thirdly, c_n is the cost of the additional food required to replenish the energy expended in work. Fourthly, c_d is the cost or opportunity cost of alternative domestic labour made necessary by the non-domestic labour force participation of the child; this may be negligible, or it may be considerable if the alternative to economic activity is, say, caring for younger children. Fifthly, c_p is the cost of the activity in terms of the loss of prestige involved in having young children working; again this may be negligible, but in some instances having children clearly outside the labour force entails a certain gain of status. Sixthly, c_r is the cost of the activity in terms of loss of recreational time. Seventhly, c_u is a measure of the "disutility" of work, although it should be remarked that in practice it is extremely difficult to operationalise such a concept.

These factors, in turn, have a complex set of determinants. In particular, y^* depends on wage structure and employment opportunities at different education levels, and on the degree of incompatibility between different forms of work and school attendance. It also depends on the perceptions of those involved: y^* could be interpreted as income received by parents, by a household unit, or by the child concerned, or indeed by some weighted combination of all of these, depending on how and by whom the labour force participation decision is taken. The importance of mortality was noted above. It is also worth noting that y^*, c_d and c_r interact, in that they reflect substitutable activity patterns; taking account of such interactions requires a more complex model specification. The factors c_u, c_h, c_n, and c_p all depend on the nature, conditions and duration of the work undertaken, indicating that a better specification of the dependent variables is required to allow for their effects.

The gains from economic activity can be expressed as a positive function of three sets of determinants:

$$I = g_2(W^e, Y_{exp}, c_q) \qquad \ldots 3$$

where W^e is expected income, Y_{exp} is the full income accruing in subsequent periods attributable to labour force experience as a child worker, and c_q measures related prestige and satisfaction associated with early progression to adult activities. In turn, the expected income can be expressed as follows:

$$W^e = h_1(W_1, W_2, W_3, \ldots, W_n; p_1, p_2, \ldots, p_n) \qquad \ldots 4$$

where W_i is the wage or other form of income the employed child would earn in job i, and p_i is the probability of employment or work opportunity in job i. W_i should be interpreted as the present value of a lifetime stream of income, and $(1-\sum_i p_i)$ is the probability of unemployment. Without going further into this function it is clear that both W and p will vary systematically with other household variables - an example is the effect of land ownership, which increases the probability of work and raises the return to such work.

The second subset of factors is encompassed by the impact of early labour force experience on subsequent opportunities. This can be expressed by a function such as:

$$Y_{exp} = h_2 (c_{sk}, c_s, c_i) \qquad ...5$$

where c_{sk} represents the lost opportunity to obtain, maintain or develop labour force skills through early work, c_s allows for the opposite effect, namely increased ability to develop physical strength or manual dexterity in work, and c_i is a somewhat broader variable, in that it represents the opportunity to develop the ability to interact with other workers, extending to the comprehension of the nature of the labour process and the capacity to survive in it subsequently as an adult worker. Some of these points may seem somewhat nebulous and are hard to define and operationalise in any satisfactory manner. But they are certainly relevant. The third factor in equation 3, c_q, reflects the possibility that, from the perspective of the child at least, there will be a gain in status relative to his or her school-going peers from labour force activity.

The demand-for-income function is complicated because it necessarily includes taste formation, a variable economists habitually ignore. Thus we could postulate,

$$d^* = g_3 (Y,B,F,C) \qquad ...6$$

where Y is the current income of the household or "consumption unit" to which the child is attached, less any contribution of the child, B the level of assets or wealth, F the family size expressed in some per equivalent adult form, and C an index of the (subjective) socio-economic status of the household, which can be regarded as a proxy for "tastes". This set of factors is probably not comprehensive and for present purposes can be left at this level of abstraction. However, the behavioural implications should be apparent. Thus the higher the income or wealth per equivalent adult, the less the perceived need for additional income, and the less the importance for labour supply of the direct and opportunity costs of economic activity and inactivity. In sum, the implicit demand for income affects labour force participation not by changing the costs of activity or inactivity, but by modifying their perceived importance.

Many of the issues noted above have received scant attention in empirical studies; indeed, relatively little empirical work has been devoted to the micro-behavioural determinants of child economic activity. A major reason has been the lack of appropriate data. The few available studies are notable for their necessarily tentative nature and limited findings. Thus in a study of 1960 census data from Chile, regression results suggested that labour force participation of those aged 12 to 14

was positively related to fertility and the female wage rate, and negatively related to the male wage. The meaningfulness of these observed partial correlations depends on the reliability of the interpretation of the independent variables, for the fertility rate and male wage rate were interpreted as determinants of the need for income, while the female wage was treated as a proxy for the child wage. These variables had the opposite signs in a school attendance function for 10 year olds, in line with the expectation of substitution between labour force activity and schooling (DaVanzo, 1972). In another study, in which a somewhat fuller model was constructed to explain the activity patterns of children aged 5 to 14 in India, it was concluded that employment opportunities raised the extent of labour force participation and lowered school attendance (Rosenzweig and Evenson, 1977). In a review of evidence from Asia, school enrolment was shown to be inversely related to the income status of households (Leonor and Richards, 1980). In a comparative study of child activity patterns in San Salvador and Khartoum, the statistical analysis suggested labour force activity was inversely related to household income and to the father's schooling (Peek, 1978).

Apart from the last-mentioned study, most empirical work has been restricted to straightforward trade-offs between "schooling" and "employment", essentially because of the nature of the available data. Subsequent research in this behavioural tradition will have to be extended into more complex substitution possibilities, considering in particular various cross-elasticities between a broader set of activities. One approach would be to use the elements of the typology outlined in Section I. While some elements in the typology (recreation, illegitimate activities) are difficult to treat, a minimal requirement would seem to be that the model should explain the allocation of child time between schooling, domestic work, labour in household enterprise, wage labour, recreation, and idleness. If this is done, one could also expect an increase in the explanatory power of fertility models in which child activity plays a significant part (Schultz, 1974; Sarma, 1978).

The dependent variable should be disaggregated not only into types of activities, but also into their duration and intensity. Though this may be impractical, serious empirical and analytical difficulties follow if the point is ignored. Thus school attendance is compatible with some types of labour force activity, and indeed with several other types of activities, depending on their nature and intensity. Another point about model design, partially taken into account in some of the empirical work, is that household decisions interact. The relationships involved in child labour supply have been discussed in cascade fashion, as if the whole model were recursive. In reality this is doubtful, especially as several of the determining variables are in their turn functions of child activity

patterns. In principle, this sort of problem can be solved with appropriate specification and good data. But another theoretical difficulty, of even more importance, concerns the nature of the utility function underlying the structure of models of this type. There tends to be an assumption that the "household" or "family" has a single utility function. Such an assumption is dubious, especially where the behavioural unit consists of a loosely structured kin group. In any case, where the earnings of a labour force participant are partly retained by that person, the model's assumptions are undermined. Logically it is also incorrect to treat a fertility decision (in which the child has no say) as depending on the same utility function as a child labour force participation decision, since even if the child has no direct say in the decision his or her presence in the family is bound to modify perceptions of family welfare.

A third theoretical difficulty concerns the conventional assumption that behaviour is based on some form of optimisation by individuals or households. A more realistic assumption would have to take account of the social network in which the children have to develop. In particular this would mean taking account of the nature and extent of relationships of "structured reciprocity" within kinship and community groups. Introducing such parameters greatly reduces the sense of neat cohesion associated with conventional micro-economic models.

As a concluding comment to this section, it is worth dwelling briefly on the problem of the link between micro-behavioural processes and the socio-economic structures shaping the available behavioural options. Clearly it is inadequate to attempt to explain child activity patterns in micro-behavioural terms without considering the nature of the social formation, the cultural constraints, the nature of household, kinship and community obligations, the structure of the labour market, and the access to it of different socio-economic groups. In conventional micro-models these factors generate constraints, exogenous variables or "tastes" which are omitted from the analysis. Such an approach sharply limits the range of phenomena micro-level analysis can address. It is therefore essential to incorporate these societal conditions into micro-economic analysis, just as it is to incorporate an understanding of micro-level behaviour into analyses of structural change. Unless both are taken into account, structural analyses risk degenerating into descriptions of processes which are rarely understood and never foreseen, while behavioural models continue to give cautious empirical support to the obvious.

IV. Implications of Child Work Activities

Various implications of child activities have been noted in earlier sections - indeed, the determinants of child activity

patterns could not be understood without at the same time considering their effects. Here we try to bring together some of the more important of these effects. However, this section is relatively speculative and undocumented, for it is frequently very difficult to isolate the effects of particular types of activity. Nevertheless, this is in a sense the core of any analysis, and the fact that it is inadequately treated here highlights the apparent dearth of research. Below the main socio-economic and demographic effects are discussed under seven headings, starting with the personal and ending with the societal.

1. Health, Physical Development, and Mortality

These are unquestionably among the most tendentious issues associated with child work activity, for it is generally assumed that there are deleterious effects on the health, stature and life expectancy of the children involved. First, it seems common for children to have a low priority claim on the meagre food available to poor rural and urban families. To the extent that children are required to perform work activities that use up scarce reserves of energy, a disequilibrium arises between their energy needs and the calorific value of the food available (UNICEF, 1969). Work by children can weaken their resistance to debilitating illnesses and decrease life expectancy. Some of the working conditions observed - e.g. a 72-hour week reported from two carpet-making establishments in Morocco (Anti-Slavery Society, 1978), including one employing many 9 or 10 year olds - could scarcely fail to have adverse effects on health and physical development. It is well known that during the Industrial Revolution working children suffered permanent disadvantages as a direct consequence of their early experience. As a famous 1843 report noted, children of framework knitters, an industrial group of workers whose children worked long hours for little or nothing, were generally weaker and smaller than children of agricultural labourers (Levine, 1977, p. 29). Thus, it is not only the effect of working which deserves to be considered, but the differential effect of different types of work as well.

There are, however, many situations in which some work by children may make a positive contribution to the health and physical capacity of themselves and other family members - in situations of extreme poverty, the mobilisation of all household labour available, including that of children, may be necessary if basic consumption needs are to be met. Also it is conceivable that some work is beneficial to the health and physical development of children, if it is not too strenuous and develops muscular and related physical powers, thereby increasing fitness and strengthening resistance to certain types of illness. This is likely to be particularly important where the alternative to work is not schooling but idleness, which in itself is debilitating.

In societies where there is a gradual assimilation of children to adult work roles, notably domestic and subsistence roles, there will often be no adverse effects on children that do not equally apply to adults, and economically productive work may then contribute to physical development in much the same way as sport or other recreational activities do in other societies. Objective criteria for differentiating between these effects are of course difficult to devise.

2. Education and Intellectual Development

In this case we have to be careful not to make an automatic assumption that work by children impairs education and intellectual development. It will generally do so, particularly in so far as energy-consuming and tiring work leaves them with neither energy, time nor inclination to attend school or learn while in school. But this is not a universal sequel, for three reasons. First, work itself may be an important component of "education" especially in household-based production systems, but also in various apprenticeship arrangements. This is one reason for not confusing education with schooling. Second, it is often claimed that the type of schooling provided for the poor and working-class population is primarily concerned not with developing and refining the creative faculties of children, but with providing malleable, committed workers or docile citizens who acquiesce in diverse forms of exploitation. Third, there is some suggestion that formal schooling may be dysfunctional in that it weakens rather than strengthens the child's ability to survive in an environment of poverty, high unemployment, and malnutrition. It is also often argued that schooling leads youths to refuse many forms of employment, and thereby leads them to become "voluntarily" unemployed and subsequently almost unemployable for many jobs. This type of reasoning can and has been used to argue that the poor should be denied access to schooling but to our mind it should be used to demonstrate the need to alter the structure not only of the educational system, but, more fundamentally, of the labour market to make work and education more compatible (Standing, 1978b, pp. 127-35). A similar point could be made about the interpretation of findings that many parents in low-income families themselves question the value of schooling. One recent review (Bamberger, 1973) cited examples of people in Latin America taking such views:

> "In this type of school they create in children from - let us say - humble classes, certain needs which are not real needs, but which are needs of people in the upper classes."

"I have thought of taking my children out of the school as they teach habits which we can't keep up at home, because we don't have the money."

"Sometimes they (the children) go to ask for money in the houses of the rich so they have money to satisfy the habits that they have learnt at school."

Similar attitudes have been reported from Bombay (Desai and Pillai, 1972), and in many other places.

However, whatever the quality and role of schooling, there can be little doubt that child participation in labour force activity tends to reduce the potential for educational development, the more so the greater the degree of drudgery of the work and the less the children are able to acquire knowledge and skills through their work. But it is noteworthy that a limited amount of certain specific types of work may be compatible with and even complementary to education and intellectual development, particularly if timed to fit the schooling calendar, and if providing children with a sense of the links between what they learn and adult work roles. There is indeed some appeal in making labour force activity one component of the process of education - that is, making economic work of various types part of the school curriculum - and this is an approach being implemented in a few countries such as Tanzania and Cuba (Carnoy and Wertheim, 1979).

3. Demographic Behaviour

There are reasons for believing that child labour has a positive influence on fertility; indeed, much of the rationalisation of high fertility in agrarian societies has been in these terms. Moreover, changes in fertility differentials over time and between groups have coincided with changing patterns of child labour. Commonly, though not always, fertility is lower in urban than in rural areas; higher among the landed than among the landless; and lower where educational enrolment is higher.[16] And although attempts have been made (e.g. Mueller, 1976) to show that the return to parents of childbearing is negative even with extensive use of child labour, the partial relationship between child labour and fertility remains positive. This of course assumes the existence of sufficiently strong intergenerational obligations for one or both parents to benefit from child production activities, but such obligations are widely observed.

The effects of child work on marriage and family formation patterns are more complex. In so far as child labour implies contribution to parental income only prior to marriage, the age of marriage may well be deferred. However, with a multi-

generational family structure and contributions to production at an early age, there is an advantage to short intervals between generations and thus early family formation. Moreover, sex differentiation, dowry systems, and inheritance patterns are all likely to play a role. So there can be no general conclusion about the likely effect of child activity patterns.

The extent of child labour in rural areas also has potential implications for rural emigration. As noted in an earlier section, the potential use of child workers in domestic and farm activities may well allow other family members to migrate in search of seasonal or longer-term employment. Conversely, a lack of opportunities for child work, or a lack of adequate schooling facilities, encourages the emigration of children themselves.

4. Sex Roles and the Intra-household Division of Labour

The activity patterns of children affect the age-sex division of labour in several ways. In particular, the tendency for girls to be set the quasi-domestic tasks while boys are given tasks such as herding encourages the growth of "sexual dualism" in the adult labour force, with men having access and commitment to non-domestic wage and other jobs, while women are relegated to domestic and related subsistence activities. However, it is interesting that time-use surveys in various parts of the world have shown that the sexual division of tasks done by children varies considerably. In a small Indonesian study, for example, it was reported that girls aged 6 to 14 spent much more time on child-care, housework and food preparation than boys of comparable ages, whereas boys spent much more time on firewood collection and animal care (White, 1975, p. 285). Yet in the village studied it was also noticeable that girls were acquiring non-domestic skills through the large amount of time they devoted to handicrafts and to agricultural wage labour; they spent much more time than boys in both activities. Moreover girls aged 12 to 14 did much more work than the boys in the sample. In Kano, Schildkrout (1978a, and in Chapter 3) noted relatively little sex differentiation between girls and boys in economic activities until approaching the age of puberty. But although both sexes undertook most activities as young children, there was a gradual transition to role differentiation as adulthood approached. Several other chapters in this book comment on this issue, and Cain (Chapter 9) gives some data from Bangladesh.

5. Unemployment and Labour Force Stratification

Child activity patterns influence both the extent of labour force stratification and the level and incidence of unemployment. But empirically it is hard to disentangle the various strands of

the relationships or identify the independent effects of child activity.

The effects on the development of the labour market are best understood in terms of several differentiating tendencies identified in earlier sections. Thus it is clear that the manual work done by the children of the poor is liable to leave them permanently disadvantaged in the labour market, in so far as it results in educational shortcomings and perhaps also nutritional-health inadequacies not shared by children of more affluent families who are not required to work. Similarly, as noted earlier, sexual dualism in the labour market may be strongly intensified by patterns of sex roles among children.

Levels of unemployment may be raised by the labour force participation of young workers reducing the work opportunities of adults, though work experience of adults is likely to help them to resist such competition.[17] But high unemployment also contributes to the growth of labour force stratification through educational differentiation. Thus in urban-industrial labour markets the existence of high and rising youth unemployment encourages the more affluent families to invest more time and money in schooling, as higher qualifications are required to have a reasonable chance of obtaining a high-status, high-wage job. Conversely, among the working class, high unemployment may well have the perverse effect of discouraging families from sending children to school, not only because children and youths are required as secondary workers to supplement low and uncertain family incomes, but because parents perceive that the amount of schooling their children could reasonably expect to obtain would be insufficient to provide access to most school-requiring jobs. Indeed, work experience may be more valuable than schooling as qualifications for the jobs they can hope to obtain. To the extent that there is such a "class" divergence in schooling, the growth of labour force stratification will be strengthened and perpetuated. The vast majority of the poor are cut off from higher-status, higher-wage jobs, and, in competing for the jobs for which there are no credentialist barriers, they drive relatively low wages down further. So the pattern of supply of workers to different types of job can be expected to strengthen labour market segmentation.

6. Social Attitudes and Cultural Responses

As child work is often an important aspect of socialisation, the development of attitudes and of normative behaviour in employment is likely to contribute significantly to the perpetuation of patterns of social behaviour. We have already noted some aspects of these embedded cultural patterns, notably with respect to sex roles. Similar processes lead to a division of labour and responsibility by age - a socially stabilising

phenomenon where a well defined transition with age can be identified. One cultural outcome of child employment patterns is their impact on kin commitment and the interpersonal obligation structure. Child employment frequently occurs within a social framework in which the work reflects personal commitment to kin, and in which the production or income is not an individual but a household or kin group benefit. The behavioural norms which the child internalises over the years of integration into work reinforce social patterns of obligation, generating positive attitudes towards particular patterns of exploitation, social organisation, and labour utilisation. This is particularly noticeable in stable, traditional societies, and any breakdown in these patterns, however induced, surely presages a transition in mode of production and social framework.

Another, related issue is the impact of child activities on the extent of labour force commitment. The gradual development of a work ethic characterises production in which there is a gradual integration of child workers, whether this is based on the survival needs of a proletariat or on subsistence production within a household unit. Where high unemployment or credentialist barriers limit access to jobs, there is likely to be a negative impact on the work ethic, with lifetime implications for job satisfaction and perception of the relationship between work and society. Bekombo, in Chapter 4, describes the processes whereby school drop-out leads to various marginal or illegitimate activities. Much has been made of the "culture of poverty". Whether or not one accepts this as a useful analytical concept, some of its elements are clearly valid and related to distorted patterns of socialisation. Inadequate social opportunities lead to anomic or aimlessly violent responses by individuals or groups, to the rejection of conventional social norms, and the formation of new norms of "delinquent" or illegitimate behaviour. Such responses can be destructive both for the individual and for social relationships.

7. Poverty and Socio-economic Inequality

In so far as children of poor families in low-income countries are required to work to a greater extent than those belonging to more wealthy families, it could be argued that child labour is a means of marginally improving the distribution of income. This conclusion might be valid as seen from the perspective of individual households - in many situations poverty is clearly alleviated by the work of children. A macro-level view, however, suggests that child employment is associated with greater inequality of income, wealth and material standards of living.

There are several reasons for this. The first concerns the effects of child work on the total incomes of the wage labour force. As noted above, there are indications that child

labour helps to maintain low wages for the labour force as a whole, notably because as a low-cost form of labour they can be substituted for more expensive adults, and because they can reduce the cost of producing wage-goods. It is questionable whether withdrawal of child workers (into the education system, for instance) would lower the wage share. In so far as they were replaced by higher-paid adults, the tendency would be the reverse. It follows that the total incomes of labour households are unlikely to be higher as a consequence of the wage employment of children. Secondly, there are effects on the ownership of wealth and means of production. High fertility among the poor is stimulated by the need for and use of child labour, leading in the longer term to increased division on inheritance of such assets as are possessed, which is one route to landlessness. Within the peasantry there may simultaneously be class differentiation if the wealthier peasants are able to consolidate their position by having larger numbers of children who can help to operate an expanded area of land.[18] Thus the marginal landholders may suffer most from this type of dynamic process, while the middle and upper groups suffer less or not at all.

A third factor increasing this differentiation is inequality of access to schooling. The higher rates of child work among low-income families tend to be at the expense of schooling, despite the increasing importance of education as a means of gaining income, wealth, and access to high-status jobs. This type of process greatly accelerates incipient class differentiation.

V. Policy Issues and Research Design

The objective of this introductory chapter is to raise questions which need to be researched. But its rationale is that certain of the activities undertaken by children in most low-income countries have unacceptable effects, both for the personal development of the children concerned, and on the societies in which they live. Accordingly, before we comment on research priorities it is worth briefly considering the issue of policy formulation and implementation.

1. Child Employment Policies

In considering issues of policy design, it is crucial to recognise that the application of policies is not independent of the social formation which the State represents. In analysing any policy, it is necessary to consider whose interests it serves, and the influence of those interests on the political, cultural, and social structure of the country concerned. Thus effective policy to control child labour in a feudal society is quite unlikely. The interests at stake would be too strong,

and benefit too much from the exploitation of child labour. In countries experiencing a transition to capitalism, various patterns can emerge, depending on the size of the capitalist sector and its influence in the State, the structure of production, the extent of state intervention in production, the effectiveness of administrative structures and the mix of conservatism, liberalism and socialism in the prevailing political ethos. Each situation must be analysed in its historical and contemporary context. There is no need to labour this point; but too often one sees lists of policy prescriptions which pay no regard to issues of this type.

Among direct child employment policies, three main groups can be identified: those which, through legislation, attempt to control the age from which different types of work can be done, as well as the wage and the working conditions; those attempting to control marginal and "delinquent" activities; and those relating to schooling and training. The first group, involving labour legislation, are effective only where there is determined implementation, a capable administration, relative difficulty in hiding the employment of children, and relatively little advantage from child employment. These conditions are essentially a function of the level and nature of development. While legislation may help to control the more obvious forms of exploitation, legislation designed to eliminate child employment is, on its own, not enough. Indeed, it is one of the ironies of child labour that, where it is prohibited by law, the law is likely to leave child workers unprotected, since legally they do not exist. Nevertheless, two situations should be distinguished - those where the law exists but is not enforced, and others where the activity is not covered by existing laws.

The second group of policies may well be more effective, if only because the interests behind marginal activities and delinquency are weak; strong governments can therefore control them. On the whole, however, they do not need to do so, and where they are induced to do so through pressure to "clean the streets", the effect is essentially to eliminate the symptoms with little effect on the more fundamental issues underlying poverty and unemployment.

It is possible to be more positive about the potential of education, training, and apprenticeship policies. After all, school enrolment rates have leapt upward in low-income countries, and there is a complementarity between compulsory school enrolment and labour legislation. One should not be too sanguine about the inpact of compulsory school enrolment policies, and it is pertinent to note that some rigorous statistical analyses have concluded that historically child labour laws have had little impact on raising the extent of schooling, even where school attendance has been compulsory (Landes and Solmon, 1972). However, possibilities exist in terms of more relevant curriculum design, integration of work and school (e.g. timing

of schooling to avoid peak agricultural seasons, or integration of schooling and apprenticeship), and the like. Still, the practice is widely disillusioning. Schooling often becomes an instrument of class differentiation rather than of integration; apprenticeships effectively become forms of exploitation; and compulsory enrolment is not and cannot be enforced because the poverty-stricken parents see no gains from schooling and something, if not much, as a return to child work.

Perhaps we are too pessimistic; one should not neglect the real gains which policies in these three categories have achieved. But most of them are faced with structural constraints which limit their potential beneficial effects, while others have merely legitimated changes that have already occurred.

In critically assessing the impact of policies, not only those addressed specifically to children should be considered. The indirect effects of policies with other objectives may be larger than the direct impact of child employment policies. Examples of government policies having indirect effects, beneficial or otherwise, include land reform, the undermining of feudal relationships and the promotion of capitalistic farming with capital-intensive production techniques, anti-natalist policies of various types, employment creation schemes such as public works programmes, investment programmes aimed at rapid industrialisation, informal sector promotion policies, creation of co-operatives, and social security programmes. The relevance of such policies is that they modify the set of socio-economic relationships which are primarily responsible for the work of children. Thus public works programmes might attract male workers from small farms, leading to increased agricultural labour inputs by women and children. Anti-natalist policies might indirectly affect child work by affecting family size and structure. Informal sector promotion involves expanding a sector which in some places relies heavily on fake apprenticeship. Clearly, many of the relationships discussed in the body of this chapter may be involved.

2. Some Research Suggestions

The employment of children is a complex issue. There exists a rapidly growing literature on the subject, as the bibliography at the end of this book indicates (though it is very incomplete, especially in languages other than English). But ascertained facts are less in evidence than gaps in our knowledge. Part of this is purely a data problem. It is difficult to obtain accurate information on the economic activities of children, even when the conceptual framework is well defined, which is rarely the case. Conscious or unconscious concealment of child work makes formal interview techniques highly unreliable. Small-scale surveys designed to clarify concepts

and analytical approaches should be strongly encouraged, including actual observation of the behaviour patterns of children by means of participant-observer techniques and other anthropological data-collecting methods. Large-scale surveys of time allocation also have a role, especially as they permit the application of econometric techniques. But they risk hiding more than they reveal if used alone, without complementary data permitting the estimation of misreporting, the assessment of work intensity and productivity, and the depiction of the structural context within which child work occurs. In particular, it is essential to identify the social relations of production and modes of exploitation which condition the activities of children. Some of these issues are taken up by Hull in the next chapter.

Useful data collection must be based on a realistic typology of child activities, involving an extension and refinement of the approach outlined in Section I. In addition to refining the typology itself, the distribution of activities of children across different categories of the typology - what might be called activity portfolios - will identify further subgroups. Particular activity portfolios recur; which and to what extent are empirical questions. If they are answered, a more adequate understanding of the extent, incidence and significance of child work will be possible.

Besides the research problems posed by description and measurement, several crucial but under-researched analytical issues can be identified:

(1) Historical analyses of the evolution of child activities through transitions in the mode of production are essential. These should not be directed so much towards the industrialised countries - a reasonable literature exists in France, the United Kingdom, the United States, and no doubt elsewhere, on the eighteenth, nineteenth and early twentieth centuries (though Morice, in Chapter 5 below, argues that more work is needed). It would be more interesting to track the evolution of child activities in the course of more recent (Argentina, India) or rapid (Brazil, Republic of Korea) cases of development of industrial capitalism, or in the course of the development of capitalist or socialist agriculture.

(2) More needs to be known about many structural issues: the effects of entry of children into labour markets, in terms of segmentation and stratification; the personal effects on skill development and subsequent career patterns; the interaction between work and school; the effect of child work on intellectual and physical development, sex roles, kin obligations and family structure; the nature of the relationship between child work and fertility; and more generally, the interactions between child work, inequality and poverty. The framework for such studies should be dynamic, in the sense of analysing the social roles of children and how their integration into adult roles forms part of the process by which societies are

reproduced or modified.

(3) At the micro-level, there exist possibilities for improving the usefulness of time-allocation data by relating each use of time to its socio-economic context, along the lines of the typology presented in Section I. Neo-classical models of household resource allocation and human capital development can, to a limited extent, give indications on the strength and direction of individual or household responses to external intervention. While they rarely give much assistance in analysing the over-all structure of behaviour, their ability to predict and analyse derivatives and marginal behaviour makes them a useful tool. Micro-level socio-cultural models are also needed - not only as a complement to neo-classical approaches, but (as argued in Section III) because cultural variables have independent effects on child activities. Micro-level work of this type tends to require specially designed data sets, and is costly. One major shortcoming of the type of time-use data gathered in past behavioural research has been the absence of information on the social relations of production within which any particular activity occurs. As a consequence the data have been unable to reveal much about patterns and levels of exploitation. Only if such information is gathered along with time-use data can a link be forged between micro-behavioural models and structural analysis.

(4) Finally, much more work is required on the impact of different types of policy in controlling, reducing or redirecting the economic activities of children, whether these effects be direct or indirect.[19] In a sense, this type of work is not independent of the previous topics mentioned. Except in controlled experiments, the impact of policies cannot even be measured without some underlying model of the relationships involved. Thus the impact of policy is best analysed in the context of one of the research areas identified earlier. But at the same time, those research areas themselves lose much of their interest unless they are related to policy issues.

VI. Concluding Remarks

Some child work is clearly highly exploitative, and particularly so by virtue of children's weakness as a group. This is true of bonded child labour, for example, or of the employment for many years of minimally paid "apprentices" who receive little or no training. But to regard this as the only aspect of the problem would be an error. In the sense of appropriation of surplus value, children engaged in wage labour are exploited, but not necessarily much more than adults in similar situations. Many forms of child work are a source of interest and possibly creative activity for the children concerned, and contribute significantly to family incomes or to family subsistence. Conventional views of the normal duration of childhood, or of the

desirability of formal schooling tend to obscure these points. In low-income countries, many if not most children combine some form of schooling with some form of non-school work. It is the incompatibility of the one with the other that must be carefully considered. The value of the type of schooling generally available should be regarded as a matter of debate. It should not be presumed that it is clearly preferable to the type of work the children would be doing. That is not to glamourise child work, only to try to correct the view that simply regards child work as the obstacle to effective learning.

Child labour - which is a subset of child work, that involving social relations of production extending beyond the family unit - should be a vital concern of all workers' organisations, for where it exists it weakens the working population generally. Children are highly exploitable, and it is right to be concerned to focus on those circumstances in which their vulnerability is manipulated to their lasting disadvantage.

Where child labour does have adverse effects - and in terms of personal development and social differentiation these are often serious - they can usually be traced to the socio-economic framework within which children work, as much as to the work itself. Thus the suppression of child wage labour opportunities is unlikely to increase the welfare of the children concerned unless substitute income sources and alternative possibilities for personal development are developed at the same time. Compulsory schooling will not help much if it neither develops creative faculties nor provides a meaningful basis for subsequent labour market entry.

Action towards child work must be sympathetically oriented towards the needs and perceptions of the children themselves. It must also be based on a thorough understanding of the motivations behind child work, its functions, and the individual gains from it, whether for the children themselves or for others who benefit from their work. There is no substitute for adequate data collection and thorough research on these issues in specific settings.

Notes

[1] This is not the place to discuss the enormous literature on what constitute "feudal relations of production", and whether the term can validly be applied in differing social and cultural contexts. Here we refer generally to social relations whereby surplus product is extracted by various forms of rent, typically supported by the use of extra-economic power, without necessarily separating the direct producers from the means of production. The term "semi-feudal" is used to refer to production relations in which the direct producers are exploited

through wage labour as well as through feudal rent and usury, again typically involving extra-economic coercion. See also Section II.1.

[2] For discussion of this in French-speaking Africa see UNESCO, 1972.

[3] Quoted in de la Luz Silva (1978).

[4] M. Sahlins: Stone age economics (London, Tavistock Press, 1974).

[5] D. Thorner, B. Kerblay and R.E.F. Smith (eds.): A.V. Chayanov on the theory of peasant economy (Homewood, Ill., American Economic Association, 1966).

[6] D. Seddon (ed.): Relations of production (London, Frank Cass, 1978); E. Terray: Marxism and "primitive" societies (London, Monthly Review Press, 1972); inter alia.

[7] Ibid., p. 116.

[8] This points to the danger of using the household as the basic unit of analysis, an issue to which we will return in discussing the micro-behavioural determinants of the economic roles of children.

[9] See, for instance, E.J. Hobsbawm: "A case of neo-feudalism: La Convención, Peru", in Journal of Latin American Studies, Vol. 1, No. 1, 1969.

[10] The extensive literature on this subject includes C. Kerr: "The Balkanisation of labour markets", in G.W. Bakke (ed.): Labour mobility and economic opportunity (New York, Wiley, 1954); M. Reich, D.M. Gordon and R.C. Edwards: "A theory of labor market segmentation", in The American Economic Review, Papers and Proceedings, May 1973.

[11] ILO: Matching employment opportunities and expectations: a programme of action for Ceylon (Sri Lanka) (Geneva, 1971).

[12] Prostitution is, of course, regarded as something approaching a normal occupation in some societies. In those

cases the entry of children to such work should be analysed in terms of income, health and career structure, level of exploitation and implications for personal development, as would be the case for other forms of work.

[13] M. Blaug, R. Layard and M. Woodhall: Graduate unemployment in India (London, Oxford University Press, 1969).

[14] E. Goody: Contexts of socialisation (Cambridge University Press, 1974); idem: "Some theoretical and empirical aspects of parenthood in West Africa", in C. Oppong et al (eds.): Marriage, fertility and parenthood in West Africa (Canberra, Australian University Press, 1978).

[15] On these issues see, inter alia, Anker (1978); also H. Azzam: The participation of Arab women in the labour force: Development factors and policies (Geneva, ILO, 1979; mimeographed World Employment Programme research working paper; restricted).

[16] United Nations: The determinants and consequences of population trends (New York, 1973; Sales No.: 71.XIII.5).

[17] For evidence from Sri Lanka see P. Richards: "Job mobility and unemployment in the Ceylon urban labour market", in Oxford Bulletin of Economics and Statistics, 1973, Vol. 35, No. 1.

[18] Compare the non-linear relationship between assets and fertility discussed in Section I.

[19] For one approach to policy analysis, see G. Standing: State policies and child labour: Accumulation versus legitimation?, paper presented to a conference on child labour organised by the Anti-Slavery Society and the Institute of Development Studies, University of Sussex, 5-8 January 1981.

Chapter 2

Perspectives and Data Requirements for the Study of Children's Work

by Terence Hull*

This chapter examines some of the perspectives that have guided research on child employment and suggests grounds for adopting broader, more comprehensive conceptual frameworks. Then, drawing on recent field studies, it briefly reviews methodological issues, including problems of defining such concepts as "child", "work", and "family", dilemmas encountered in data collection, and a number of points to be considered in the tabular presentation or statistical analysis of the results. Finally, it discusses the importance of reporting the assumptions and methodology used, of validating concepts and of placing data on children's work in the appropriate institutional setting.

I. Perspectives for the Study of Children's Work

> An only son preserves his father's name And keeps the fortune growing in one house: If you have two, you'll need to have more wealth And live a longer time. But Zeus can find Ways to enrich a larger family: More children mean more help and greater gains.
>
> Hesiod, eighth Century BC.

In many places at various times Hesiod's advice in Works and days has been the standard perspective on children's employment. Its bias is clearly towards the parent, with emphasis on the benefits expected to flow from children rather than on the costs borne by parents. This perspective relates to an agrarian economy facing little competition for land and using fairly primitive technology. Such societies have tended to hold a highly unified view of life that sees no basic divisions, and certainly no conflict between the economic, social and psychological value of children.

It was not until the spread of commerce, and later the rise of industry, that questions were raised on the economic roles of children and their roles as family members. The prodigal had, of course, existed in agrarian communities, as the Bible describes on many occasions, but the growth of towns in Europe,

the great expansion of trade and the development of the apprenticeship system increased children's mobility with the result that parents recognised "economic" values in their offspring; a value that could be readily converted into cash.

The decline of family-based systems of production occurred gradually in Europe. By the end of the eighteenth century, however, the pace of change had quickened to such an extent that only the term "revolution" could adequately describe the technological innovations and new social organisations that characterised the dawn of the industrial age. A key factor in this transformation was the exploitation of child labour in factories, mines and mills (Hammond and Hammond, 1948, Chapters 8 and 9). The economic activity of children, while often vital to the family budget, was generally independent of the employment of the parents. In addition, long working hours, and in some cases shift work, widened the gap between the lives of parents and their children.[1]

Reaction against the exploitation of child labour came through lengthy debate, government inquiries and attempts to initiate reforms. Out of these grew the first attempts to study children's employment using surveys, government records and direct observation. The British Parliament received a series of reports on the employment of children in factories (1816, 1818, 1819, 1832, 1833), as chimney sweeps (1817, 1818, 1834) and as handloom weavers (1834, 1835). Numerous scholars of the period included the issue of children's employment in their research into poverty and the principles of political economy.[2]

While scientific methods transformed research on the subject of children's work into a more objective, inductive exercise that placed great stress on the collection of valid data, the perspective that directed the inquiries maintained essentially the same normative orientation taken by earlier writers. The guiding question was: what is the impact of work on the welfare of the child and the family? For most academic researchers the a priori orientation was that child work was harmful, and research design often leaned toward proving this point rather than weighing alternative interpretations. However, in the early part of the nineteenth century, there were numerous "pro-manufacturing" writers who argued that children were better off in factories than in the streets or working as apprentices for artisans, as family labourers, or in mines. By the 1830s public opinion and the weight of evidence were against such arguments, and laws controlling children's participation in paid employment were gradually enacted. At the same time, the spread of schooling offered an increasingly legitimate alternative to children's employment and an additional argument for its control. Working children, it was said, were denied the opportunities offered by literacy, numeracy, and a broadened world-view. New official personalities such as the truant officer and writers such as Horatio Alger in the United

States reflected a shift in the socialisation of young people. Compulsory schooling brought mass literacy, and the mass production of "stories for boys and girls" inculcated the virtues of thrift, diligence and industry.

If we look back to the beginning of the twentieth century, the crucial generalisation would seem to be that exploitation of child workers in the industrial nations of the world was gradually becoming limited to special areas, industries or racial groups. At the same time the non-industrial world was receiving more attention from social scientists as European colonial Powers attempted to understand native societies in order to make more effective use of them. One intellectual stream of particular interest for our purposes is the study of socialisation undertaken by anthropologists throughout the world in the first half of this century. In the course of discovering how individuals acquired the characteristics and behaviour of a given culture, these researchers found themselves considering the vital period of late infancy and adolescence. During this period active participation in adult types of employment was initiated, and this was recognised by anthropologists as a major element in cultural transmission and socialisation.[3] This type of study produced a remarkably different picture of children's employment from that painted by nineteenth-century social reformers, and only part of the difference can be attributed to the differing economic systems considered. The reformer seldom paused to ask whether factory discipline passed on cultural norms and values to young children, and anthropologists seldom remarked on the effect of repetitive activities on children's intellectual development, or evaluated the danger of accident or illness attributable to child work. Hence the horrifying accounts of the former, and the rather romantic renderings of the latter.

In retrospect it is interesting to note that the normative orientations of these two intellectual streams were associated with very different empirical approaches. The survey techniques. and urban-oriented community investigation of Charles Booth and associates fit firmly in the tradition which later produced "Middletown"-type studies. Using census data analysis, large-scale surveys and industry investigations, the emphasis here is on quantification. The ethnographic approach, and in particular the emergence of the "participant-observer" produces results that are characteristically small-scale and highly detailed, and focus on "typical" behaviour.

There is no reason to argue that the normative orientations of these two branches of the literature on children's employment either determined or were produced by the empirical approaches taken by their respective practitioners. After all, there is something of the participant-observer in Engels' report on the plight of the residents of Manchester (1844), and many an anthropologist has puzzled over contingency tables showing

rates of children's participation in harvesting and weeding. However, since the social sciences developed with quantifiers mainly in industrial societies and anthropologists mainly sent to the tribal or peasant societies of the colonies, the methodologies were dictated primarily by the nature of the object of the research; the subject of the research - be it welfare or socialisation - was dictated by the researcher's interest, or the interests of his or her patrons.

The preceding paragraphs take no account of a number of other traditions of research into children's labour, most notably those followed by various groups interested in children's employment in the cottage industries of non-industrial nations. Some of these date back to the last century. It is not our purpose here to undertake an exhaustive review of such studies. The two streams of thought described above illustrate the important influence of the normative orientation - or what might be called research perspective - on the course and results of research. Essentially, researchers seldom find much more than they set out to discuss.

If this is the case, then research design must be prefaced by a clear statement of perspective, outlining the researcher's conception of the nature of the problem. Some researchers set this out in terms of a hypothesis designed to be rejectable, or as a guiding question designed to be answerable according to certain criteria. Either approach is preferable to an "investigation" of a general topic. The researcher who sets out to discover the "nature of children's work in village x" is much more liable to produce spurious results than one who aims to test a well formed hypothesis.

While clarity of purpose is an over-riding requirement for any social research, breadth of purpose is also important in studies of children and employment. The literature on this subject dramatically illustrates how concern with a narrow aspect of behaviour - be it the effect of working on child welfare or the transmission of culture through job training - can blind the investigator to alternative concerns. If the purpose of the research is purely academic, this might be excused as part of the step-wise approach researchers follow to undertake inquiries. However, even purely academic uni-dimensional research may be used in the determination of social and economic policies, with ramifications far beyond the research process *per se*. Expenditure planning, regulations and the design of government programmes inevitably have multi-dimensional effects.[4]

The criticism of research projects that take only one perspective on the work of children is largely prompted by the fact that so many such projects have been found to be incomplete. For example, there has recently been considerable interest in studying children's work as an element in parents' desire for high fertility (the so-called "Value of Children"

studies) and as a contribution to the family labour force; these investigations, while unquestionably of great value, suffer from a general failure to note the techniques and, more tellingly, the substantive results of other types of studies.

In the remainder of this chapter a variety of techniques for the study of children's work will be reviewed. Some methods, like time-budget analysis, are associated in the literature with particular theoretical concerns while others, like census and survey analysis, are used by people who view the problem very differently. It will be argued that while there may be a link between perspective and method in particular cases, in general methods can be discussed independently from perspective. Moreover, the fact that studies sharing a common theoretical or moral orientation have not taken advantage of a particular type of data or technique of analysis may in itself raise suspicion about the validity of the results. For example, studies of children's work in particular industries may be used to support broad generalisations. But if they are based on data obtained through participant observation techniques, rather than analysis of survey or census data, they are likely to be questioned on the grounds of "unrepresentativeness". On the other hand, a researcher who quotes a labour force participation rate for children aged 10 to 14 as being "5.3 per cent" might equally be challenged to provide verification from data based on observation or intensive survey. Repeated use of one technique may reliably reproduce similar results, but normally it is only through the use of a variety of approaches which yield consistent results that the validity of conclusions can be established.[5]

II. Research Strategy and the Information Base

1. Finding a Basis for Collaborative Studies

The analytical framework proposed by Rodgers and Standing in Chapter 1 derives primarily from the tradition of concern over children's welfare discussed above, but explicitly takes notice of other perspectives which focus on patterns of exploitation, socialisation, fertility, labour force structure, and such issues as poverty, the role of women and socio-cultural institutions. The eclectic nature of the framework welcomes research designs of great breadth and variety, and the participation of investigators from many disciplines. While this move toward a holistic approach is fully in line with important recent developments in the philosophy of social science research, it does carry some dangers. A broad, comprehensive framework is often difficult to put into operation, both as a whole, and as separate units. The assumptions, definitions, and research orientation of the various relevant disciplines are often at variance, and sometimes in contradiction, so

investigators nominally using a common framework of analysis may find it hard to co-ordinate efforts satisfactorily. Presumably, though, this is a problem that can be overcome through extended collaboration and compromise.

The first step in any such collaboration is agreement on the scope of the study, including the identification of a common perspective. Implicitly the papers in this volume, and other recent research noted in the bibliography, can be seen to fit comfortably in one or another section of the Rodgers-Standing framework. This is to be expected, given its eclectic nature. However, the papers' individual approaches serve to isolate them, and make it difficult to draw together the results as an intelligible unity.

To overcome this difficulty researchers studying the problem of children and employment should attempt to relate their particular topics to several main themes:

(i) The impact of work on the welfare of children

(ii) The role of work in the socialisation of children

(iii) The inter-relation of schooling and employment

(iv) Children's productive contribution to the family and society

(v) The socio-economic determinants of children's participation in the workforce

(vi) Patterns of exploitation.

Some studies lend themselves more readily to broad interpretation than others. Schildkrout's chapter on Kano addresses all these perspectives to some extent, because it takes a comprehensive ethnographic approach. On the other hand, Morice deals with the informal sector and is more explicitly concerned with welfare issues, so the task of examining his proposals in terms of socialisation is more difficult, though none the less worthwhile.

The second step is the definition of basic concepts that are at least translatable, and if possible common, to all members of a collaborative effort. What is a "child"? This question appears simple, but is especially vexing when one attempts to standardise concepts. Researchers have used such definitions as "those under 16", "age 1 to 15", or "unmarried workers", but in practice, in societies with little concept of calendar age, the data on age are really based on interviewers' evaluations of physique.[6] Similar problems arise in defining such apparently simple concepts as "work", "employment", "leisure", and

other activities; "income group", "social class", "education", and other dimensions of socio-economic difference; "employer", "head of family", and other relationships which describe the nature of authority and subordination in the economy. Unless researchers share a common understanding of the phenomena, and correctly perceive the relations between each other's assumptions, data, analysis and findings, there can be little hope of effective collaboration.

The third task to be faced in a collaborative research programme is a more narrow problem of definition, and deals with the operational specification of units of analysis. The units may be individuals, families, households, industries, villages, or other social groups. Whatever unit is used, it is the researcher's prime responsibility to specify clearly the definition of the unit, and where possible to describe the relation of this unit to other commonly used units of analysis. The importance of this requirement is underscored by Leach in his critique of a social survey in Ceylon.[7] The investigators had used a "common cooking-pot" definition of a household and produced the striking statistic that over three in five households were landless. Leach, drawing on anthropological data, noted that it is common in Sinhalese society for different married couples living under the same roof (in extended or joint families) to have separate cooking-pots but to work land together, legal ownership of the land being with the senior family member until his death. Thus, Leach concludes, the true statistic on landlessness is probably much lower than that found in the survey. Had the surveyors paid more attention to the units chosen for their analysis, they could have avoided such inaccurate results.

This point is all the more important when one considers the work of children. Dangers of bias arise because of the potential mobility of children. Village surveys using families as the unit of analysis may miss large numbers of youngsters who have left home to go to the city or to distant schools, to serve apprenticeships or to live with relatives. Studies focusing on particular agricultural practices or industries may ignore great numbers of children who do not participate in these activities, and, of course, studies of school-children invariably fail to describe the lives of drop-outs.

The final step in establishing a basis for collaboration is the design of research instruments and plans of analysis which can effectively operationalise the decisions made as to perspective, basic concepts and units of analysis. Superficially, this seems to be a natural by-product of the previous steps, but the frustrations of researchers coming to grips with the conventions and techniques of other disciplines are most likely to emerge here.[8] There are three typical approaches to the problem of operationalising study designs.

First, the purists acknowledge the contribution of other disciplines to the identification of research problems and definitions, but insist on disciplinary autonomy in the development of analysis plans, and implicitly claim central importance for their own disciplines through their habit of regarding other disciplines as providers of "important background information" or "useful data for testing our models" or "interesting alternative ways of interpreting our data".[9]

The second approach is more avowedly interdisciplinary in that collaborators acknowledge the essential equality of disciplines but maintain nevertheless a certain degree of autonomy in the development of separate segments of the research plan in order better to exploit the comparative advantages enjoyed by disciplines in handling different types of data collection or analysis problems. An interesting example of this type of approach is documented in the report of a project studying the commercialisation of agriculture in Buganda where it is clear that the co-investigators were strongly committed to their different research techniques, but modified their approaches in the light of their partners' experiences.[10]

The third approach is that of people who have training in methods and theories that are not traditional to their nominal discipline and for whom issues of disciplinary equality or autonomy are of only marginal interest. Techniques of analysis are designed and applied according to the needs of the research problem, and with little regard to the boundaries of disciplines.[11] Myrdal exemplifies this approach on a grand scale in Asian drama where he strongly argues for a removal of "the barriers hampering the transmission of ideas". But even he hesitates at the boundaries of "behavioural research" and hopes that his study "can stimulate researchers in other disciplines" to follow lines of inquiry suggested by results of economic research.

2. General Approaches to Collecting Data on Children's Work

The history of research on children and employment contains a wide variety of methods of data collection, from the standard procedures of historians to quite specialised forms of inquiry designed specifically to overcome problems inherent in studying children. In the following discussion emphasis will be placed on direct data collection methods, since methods of handling secondary data are fairly well known, and in any case very dependent on the nature and availability of records in particular societies. Moreover, this discussion will focus on the relevance of primary data collection techniques to the specific issues of children and employment. Readers interested in attaining a general understanding of these techniques are referred to manuals prepared for this purpose.

Several techniques are discussed below, starting with the most directly observational, and proceeding along a continuum of increasingly structured mass-interview methods to national censuses. This sequence is arbitrary, but is not without importance. Good censuses are grounded in knowledge of the nature of socio-economic conditions, derived from observational studies and surveys however, it is also true that the researcher is likely to interpret observations more acutely if informed about the general patterns revealed in surveys and censuses. Thus the order of exposition does not seek to suggest a temporal pattern when it comes to applying the techniques; they should be regarded as interactive, with research methods evolving as broader understanding of the nature of the research problems is achieved. No one technique should necessarily be used first; but the researcher's initial step should be to review the experience of others in applying a variety of methods.

(a) Direct observation

Epitomised by the method of participant observation[12] developed in anthropology, the researcher using direct observation techniques would normally reside in the study area, participate in daily activities, observing the behaviour of a (probably small) group of children, and systematically record these observations. There are a number of problems inherent in this approach, the most vexing of which is the issue of obtrusiveness; children's work patterns may change in response to a researcher's presence. To overcome this source of bias a system of "random visits" may be arranged on various days and at different times, with the researcher recording only what the child was doing immediately prior to the researcher's arrival (Johnson, 1975, pp. 301-303). There are also various times of day and certain activities during which even a brief visit from the researcher would be considered ill mannered. To cover these occasions some anthropologists have relaxed the principle of personal observation and either interviewed the child about the activities of the preceding 24 hours, or asked the child (if literate) to keep a diary of activities for given periods. The fact that the researcher is resident in the area offers many opportunities for such indirect data to be validated through "accidental" observations made during the course of daily life.

Direct observation provides the researcher with opportunities to refine continuously the basic concepts of investigation with increasing understanding of the social, economic, and psychological context of particular behaviour. Take for example the concept of "work". At first glance small boys may appear to be playing as they fashion slings, but when the sling is later used to hunt birds around rice fields, the researcher

may re-interpret this behaviour as being a form of work. This new interpretation may alter again as it is learned that the boys have not been ordered to hunt birds, and may be dramatically reversed if their father suddenly confiscates the sling and berates them for killing birds which are natural predators of grain-eating rodents. This example shows that a great variety of studies undertaken in different socio-economic environments are required in order to develop and refine a set of concepts about the meaning of children's work. The studies may be "pure descriptions" of activities observed by researchers or perceptions and description contributed by children and other members of the study population.

When societies are undergoing rapid and dramatic changes, the direct observation method runs the danger of misinterpreting current behaviour as representing a timeless pattern. This is exacerbated if reports are written in the "ethnographic present" tense characterised by statements such as: "The Javanese do ..." or "The Javanese believe ..." with no acknowledgement that behaviour in the past was different.

History may be injected into direct observation if the researcher can find informants who are able accurately to relate the changing patterns of children's activities, preferably in detail, and with as comprehensive a coverage of family members, neighbours or schoolmates as possible. These oral histories have the advantage that information is provided by respondents who are reflective and can articulate experiences in a meaningful fashion, but of course there is always a danger that such talented people have untypical experience and perception that cannot be taken to represent the "average".[13] However, if the experience of Oscar Lewis (especially as reported in Lewis (1963)) during his various compilations of oral history is any guide, patience, skilful probing and careful translation and editing can reveal eloquence in respondents whose natural language may be crude.

(b) Community-level studies

Among the major pitfalls of observation techniques is the problem of discovering what is happening outside the field of observation. This is particularly important in the case of children's work since the accessibility of children to the observer will depend on the nature of the job, and it is common to find that the most conspicuous children are those who are working in fields, in fairly large shops, or on outdoor household tasks. Many other jobs are less conspicuous, hence more likely to escape observation. The same problem is inherent in the observation of different types of leisure or schooling behaviour. As mentioned above, one solution is for the researcher to collect work diaries, or detailed life histories to supplement observation. Another is to expand the coverage gradually,

relax the requirement of direct observation, and utilise such indirect tools as surveys, official records, and key informants. Such a shift tends to refocus the researcher's attention from the level of the individual child or small group (family) to larger social organisations and institutions. Then the purpose of research becomes the comprehensive study of children's work within the broader social framework, normally defined as a community.

Arensberg has classified community-level studies as a type of "observational method" through which the researcher undertakes a "massive immersion ... in [the community's] internal realities and complexities".[14] This style of research which he and others call in vivo is contrasted with social surveys and experimental designs, both of which involve greater detachment on the part of the investigator. While this is a useful definition, it could as well be argued that the distinction between direct observation and "community" studies is that, practically speaking, a researcher cannot directly observe all behaviour in a community and hence must rely on some form of structured, indirect data-collection techniques. The type of community studies we are considering here are thus not in vivo, grounded in experience, but rather attempts to extract key elements of information from all sections of the community.[15]

The use of indirect data collection techniques in community studies introduces a series of problems for survey researchers, whether they study a relatively small village or plan a national census. Whereas the direct observer may enter the field without a systematic conceptual framework and absorb information as it naturally enters his or her field of perception, the survey researcher must predetermine the type of data sought, with clear, operational definitions of terms and standard procedures for obtaining, recording and manipulating the data. Preferably, of course, the definitions are based on some prior understanding of the community under study, perhaps from previous direct observation. However, one of the most frequent criticisms of the survey approach is that the basic concepts included in the survey schedules sometimes have little relation to social reality, and the results therefore lack a vital dimension.

Community surveys have a number of strengths that make them particularly useful for studies of children's work. First, because they are inclusive, the researcher is assured of obtaining comparable data on all children of the community, and thus avoids the biases mentioned above which arise out of selection problems. Second, since all children are studied, it is normally feasible to study social and economic factors causing differences in work patterns (e.g. Hull, 1975; Hart, 1978; Cain, Chapter 9 below). Third, given the relative compactness of communities in rural (and some urban) societies, the researcher can reasonably undertake surveys in stages, with

each round serving as the basis for refining definitions and concepts to be used in later rounds. This is particularly useful in the context of children's work because relatively little is known about cultural variations. Fourth, within each community there are normally particular groups of children with unusual work patterns who can be studied through direct observational techniques, thus providing rich additional data and the basis for verifying survey results.

As community-level studies become more detailed, include more respondents and consequently require more research team-members, the task of the principal investigator is increasingly that of administrator rather than observer. Those steeped in the anthropological tradition[16] of Malinowski, Evans-Pritchard, Morgan, Murdock and other pioneer participant-observers often find the demands of creating and running a research bureaucracy frustrating if not altogether stifling; but unless these demands are met the project may fail. Questionnaire design and testing, interviewer selection and training, mapping, record-keeping, checking and re-checking, coding and tabulating are vital steps requiring careful planning and execution.[17] This is not to say that the researcher should approach the task with the mentality of a clerk; each stage requires creative thought that must, however, be complemented by thoroughness.

Village studies of employment are increasingly common and many of them have looked in some detail at children's work (e.g. Dasgupta, 1977, pp. 23-33; Nag, White and Peet, 1978; Hart, 1978, pp. 131-135; Hull, 1975; and Khuda, 1978). Connell and Lipton (1976, pp. 46-53), in reviewing the literature, call for greater efforts to be put into studies of the relation of household composition to labour use with special attention to the nature of labour force participation at young ages. Such issues are likely to be most effectively studied at the community level.

At this point it might also be mentioned that community-level studies include not only those social aggregates normally termed communities - villages, neighbourhoods, towns, squatter settlements, and so forth - but might also refer to studies of industries, occupational groups or schools. The major criteria for inclusion is that the individuals studied share some experience which the researcher (and presumably the individuals) regard as a force binding them into a community. Such a description may open the way to debate on precise definitions - are there "communities" of pickpockets, street vendors, high school students? - but as long as researchers are careful to demonstrate how their defined communities fit into the broader society, both in terms of proportions (quantitative) and functions (qualitative), such debate should be useful in advancing our understanding of children's work.

Two major criticisms of community-level surveys frequently arise. One is that, since they are generally carried out intensively over a relatively short period of time, they represent only a "snapshot" of the situation. Such a view might be distorted if the community is experiencing rapid socio-economic change. Researchers may then be looking for explanations of behaviour in cross-sectional patterns, when what is really needed is an understanding of historical development. This criticism can be partially overcome by designing surveys to collect retrospective data (analogous to the oral histories described above), or by restudies, longitudinal (monitoring) studies or periodic surveys (to be discussed in the next section).

The other major criticism is that community-level surveys are representative of a particular geographical or social isolate only, and cannot be taken to reflect the behaviour of a broader population. From a purely statistical viewpoint this criticism is undeniable. However, researchers who have used the approach point out that statistical standards refer to only one rather rigid notion of representativeness, and that normally the selection of communities for study follows criteria which the investigator regards as being of a priori importance in the conduct of the research. The community is thus "representative" of broader social groups displaying the same characteristics according to these criteria. Further, the depth attained by community studies in understanding the processes of children's work is important. Children may display different work patterns in other communities, but researchers often find that the logic of behaviour found in one community is applicable to other, quite different situations, if not by analogy then often by contrast.

(c) Periodic or continuous monitoring, and restudies

Multiple rounds increase both the depth and richness of survey results by testing issues such as seasonality, chance variations, and the validity and reliability of data.

Periodic monitoring is especially valuable in studies of children's work in agrarian economies because of the high variability of children's participation during the agricultural cycle. When the school calendar and religious observances are taken into account, one often finds that children's work is highly irregular and best measured through frequent revisits. In his study of a Javanese village, White visited households every sixth day. This period was regarded as being short enough to catch major variations due to season, school calendar and holidays, but long enough to avoid pestering respondents. More importantly, since the Javanese week has five days, and the Gregorian seven, the use of a six-day interval eliminated any potential bias from activities that were undertaken in weekly

patterns such as marketing (which follows the Javanese week) and mosque attendance (each Friday).

If visits are made daily, or if recording is simple enough for families to keep activity diaries, monitoring becomes a virtually continuous operation. It is doubtful whether continuous monitoring offers any real advantages over the sort of regular visits undertaken by White (1975) and referred to by Cain (Chapter 9 in this volume), and it has the serious drawback of being extremely intrusive, thus most likely to influence the very activity patterns it is meant to study.

Budget and time restrictions generally limit the duration of even the most ambitious attempts at periodic monitoring to one or two years; while this is sufficient to account for various short-term changes such as seasonality, it cannot encompass the broad transformations that have been occurring around the world over the past decades and centuries. For this purpose the restudy of a community can be particularly enlightening. Epstein has discussed the advantages and drawbacks of such endeavours, pointing out that a second study or survey may be carried out by the same people who did the first, or another group entirely.[18] One of the problems raised by restudies is to decide whether observed differences are due to true social change, different investigative techniques or simply different perspectives that yield two visions of the truth. If the initial investigator presents clear descriptions of study concepts and methods, these problems should not arise. Of course, scientific methods develop and there is often a case for modifying data collection procedures to account for improvements. None the less, restudies that aim to examine change should not depart so far from the original methods as to cast doubt on the comparability of findings. In any case they should repeat enough of the original method to establish some common basis of understanding before applying alternative approaches.

Apart from examining change, researchers may use restudies to test the validity and reliability of the original study,[19] intentionally applying quite different, and for them more relevant, methodologies. Mamdani (1972) provides one of the most effective examples of this in his critique of the Khanna Family Planning Study[20] where, using an anthropological approach backed by a strong theoretical framework, he reinterpreted the meaning of villagers' responses to a survey, explaining the "rationality" of their high fertility in terms of their economic conditions. More studies of this type are needed, although they do not always have to oppose "anthropologists and surveyors". It is worth noting that Mamdani's data on the work of children are extremely patchy, leaving numerous open questions about the nature, organisation and productivity of children's work; the influence of schooling on children's propensity to work and the life-cycle pattern of children's participation in family enterprises. There is scope here for a further

restudy using approaches such as those developed by Johnson, White, Cain or Hart. While this could theoretically be done in any village in the region of the Khanna Study, it would be particularly useful to restudy Manupur, where Mamdani worked, to establish a vivid basis for comparison.

(d) Sample surveys

Despite anthropologists' arguments supporting various non-statistical notions of representativeness, researchers would often like to obtain results that accurately reflect the behaviour of people in large regions. To obtain data through full enumerations would be prohibitively expensive, time-consuming and ultimately futile since scientific sampling procedures allow the investigator to select a small group of respondents whose behaviour, within narrow margins of error, is representative of the behaviour of all members of the population.[21]

Sample surveys are another step along the continuum away from direct observation, and because of their geographical dispersion they offer fewer opportunities for the principal investigator to become "participant-observer" than are available in community studies. Mapping, construction of a sampling frame, transport and lodging of interviewers and other logistic questions are extremely time-consuming in the sample survey. Mitchell argues forcefully that the survey technique makes great demands on background information, personnel qualifications and organisational skill, which are difficult if not impossible to attain in developing countries.[22] Moreover, whereas the team members of a community survey generally have fairly close relations among themselves and with their respondents, sample survey teams are scattered, with perhaps days or weeks elapsing between meetings. When problems arise, either with respondents or with the questionnaires, community-level researchers can handle them quickly, but sample surveyors often find that time-lags in reaching interview teams prevent changes in questionnaires. Because of this, sample surveys are generally most successful in collecting "hard" data, where basic concepts and collection techniques are very clear. They are not as successful in exploratory ventures that demand an iterative research strategy.

At the present stage of research on children's employment, sample surveys have most to offer in collecting relatively straightforward data on age, sex and participation in various types of activities, and in relating these to a wide range of independent and background variables, such as residence, family structure, income, schooling, marital status, parents' characteristics, etc.[23] Only after much greater refinement of concepts and methods will sample surveys be useful in collecting data on children's marginal economic pursuits, participation in the informal sector, and irregular involvement in what

might be called "traditional" activities, such as village night-watch, service in ceremonies and artistic endeavours. These aspects of children's work are often important, but they are so complex or culture-specific that the (often westernised) researcher does not know how to ask valid questions about them.

One area of particular importance that has commanded relatively little attention in the literature is housework. Children are often very active from young ages in various tasks in and around the house and in many countries have prime responsibility for collecting fuel and water and tending animals. Surveys directed specifically at this issue might shed new light on co-operation among household members in matters of mutual welfare. One tactic is to ask all individuals what housework they do, but also ask a key informant to report on which members regularly do various basic household tasks such as cooking, sweeping, washing, gardening, etc. By alternately directing specific attention to individuals and tasks, a survey can be designed to collect hard data on a relatively under-researched topic (Hull and Hull, 1977).

As more observational and community studies are reported and reviewed, the list of children's employment topics suitable for investigation through sample surveys will grow. Specialised sample surveys, designed to ensure maximum data validity and reliability, and addressing very narrow, clearly defined topics, have an important role to play. However, they should be focused and well planned to avoid becoming misguided, encyclopaedic attempts to give empirical vestments to the Rodgers-Standing framework.

(e) Census

Censuses, and by implication the huge labour force, agriculture and industry surveys regularly conducted by governments, present a particular challenge to researchers on children's employment. For many of the same reasons why sample surveys were criticised above, we might feel that censuses do not collect data on children's work effectively. But while it is the researcher (and the funding agency) who decides whether or not to conduct a specialised survey, censuses are *faits accomplis*; like it or not, governments conduct them and there are usually a number of variables relevant to children's work. The researcher's task is thus to evaluate the validity and reliability of these data, and to suggest improvements in census procedures to ensure better data quality. Where data are found to be of acceptable quality the field is open for all manner of analyses. However, census or other government survey data tend to cover only organised and regular activities, and even for these topics the data normally deal only with participation in activities and not intensity of work, productivity or changes over time.

The issue of children's participation in economic activity is important in understanding the total labour force, but it has been overshadowed recently by the concern most analysts have shown for adult, and particularly female, participation.[24] In quantitative terms there is no doubt that variations of participation derived from differences in female labour force participation are the largest component in rates as a whole. However children's participation (looking here at people aged 5 to 20) may be a sensitive barometer of changes in labour force structure, and in any case will reveal a great deal about future labour quality. Adolescents' experiences in schooling, work in industry, agriculture, or family enterprises, unemployment or none of these activities are indicators of likely later participation in organised economic pursuits.

The dilemma facing the analyst is that the stringent definitions needed to collect census data may be too narrow to capture much of the activity of children.[25] To relax the definitions, though, is to run the risk of obtaining less valid or less reliable data. This is not to say that current practices are properly balanced, for there is evidence (Standing, 1978b, p. 26) that standard labour force definitions might be considerably relaxed without affecting data quality.

A starting point for deeper analysis of census data on children's work has been provided by Durand (1975, pp. 15-45, 218-223) in his international review of census labour force data. Much more work must be done on the particular problems of data validity and reliability in census analyses of children's work, through a number of country case studies. This would allow sufficient attention to be paid to the socio-economic, demographic and cultural factors that are assumed to play determining roles in children's participation. A major goal of research should be to examine census definitions and interviewing procedures carefully, so as to ensure that data on children's work, however defined, are accurately obtained.

III. Special Issues in the Study of Children's Work

The approaches we have described face a number of common issues surrounding the study of children's employment; as they cannot all be fully developed here, we will concentrate on the most important.

1. Determination of Ages and the Definition of a "Child"

While different cultures have their own notions of childhood, and many take no notice of passing solar years in the measurement of human transitions, researchers must rely on chronological age as the basic unit of any operational definition for a study (but cf. Schildkrout, Chapter 3). To do otherwise would almost certainly exclude comparison with research

from other cultures. Moreover, the standards used in many cultures are often subjective ("When a boy is strong enough ... when a girl is skilled") and could vary among individuals and over time, thus becoming sliding criteria of little value in measurement, whatever intrinsic interest they might have as a reflection of indigenous concepts.

Some researchers are lucky enough to study people who have long experience with the Gregorian calendar, who document births, baptisms, marriages and deaths, and annually celebrate birth anniversaries with special food and gift exchanges. In these societies, children and adults may be able to recite not only their own birthdate and age accurately, but also those of their siblings, parents, friends and perhaps a bevy of extended kin. Researchers in most of Africa, west, south and southeast Asia have no such luck and, sometimes unsure even of their own birthday, have no expectation that respondents will be able to report accurate chronological age.

When studies focus specifically on current patterns of children's work they tend to benefit from some recent social trends. First, as schooling spreads, many children find themselves "assigned" an age when they are around 5 or 6 years old, and this is generally within a year or two of their real age. As they progress through school, years are regularly "assigned", and by the late 'teens are still likely to be enumerated within two years of actual age, well within the margins sought by most studies. As children go through this process parents begin to take note of the timing of subsequent births, and the margin of error of estimation on entry to school is reduced (if it is not manipulated by parents seeking to give their child an advantage by saying that a 7 year old child is only 5, in the hope that the child will perform better than younger classmates).

Second, radio, newspapers, urban employment, government regulations and all the other accoutrements of modernism that follow schedules are making calendar watchers out of increasing numbers of the world's people. When asked about dates, they at least understand the reference point of the question, and can frequently give an answer which, though unfounded in fact, feels right. Brightly coloured calendars are also favourite wall decorations in homes the world over.

Various gadgets are used by survey interviewers to estimate people's ages. Wheels and sliding scales can be devised to convert local to Gregorian calendars, event lists are compiled to jog the memory ("was x born before or after the war"?), and elaborate schedules designed to order births (see Scott and Sabagh, 1970; Caldwell and Igun, 1971; Hull, 1976). It is safe to say that when such devices are necessary, truly accurate age reporting is impossible, although improved age reporting can be achieved.

Researchers planning to collect their own data should not regard the impossibility of attaining fully accurate age data as a licence to record ages in arbitrary groupings (such as "under 5, 5-10, 10-15"). Instead interviewers should be trained to make the most accurate estimate of a respondent's age possible, record this in completed years (not rounded to the nearest year) and note all supporting information used in making the estimate (such as birth certificates). The researcher should examine the distribution of ages before choosing the age groups to be used in the analysis. If there are anomalies such as disproportionately high frequencies of certain ages, the groupings can be chosen to maximise the probability of people falling within the range of their real age. For example, if heaping occurs at 10, 15 and 20, these ages can be put at the centre of the groups 8-12, 13-17, 18-22, since the people mistakenly recorded as being, say, 15 are most likely to actually be 15 plus or minus one or two years. So long as the ages are recorded in exact completed years the researcher can experiment with different groupings that best suit the current analytical purpose, and data can easily be regrouped to conform with results published by other investigators, or with the standard five year classifications used in censuses (10-14; 15-19; 20-24).

Researchers are frequently at a loss when it comes to deciding on upper and lower age limits to their definition of "children", and sometimes make arbitrary cut-off points with little thought as to how the decision will affect their analysis or the comparability of their results with other studies. In the data collection process, a good rule of thumb is to take the broadest limits, and then make decisions about narrowing boundaries during the tabulation of results. In deciding whether to interview or observe 5, 8, 10 or 12 year-olds for example, the researcher should consider the receptivity of the different age groups to be examined and, whenever possible, test the questionnaire or observation procedures on a few young children to discover where problems might arise. The studies by White (1975) and Cain (1977a), for instance, have shown that some quite young children work in lower-income countries, so the researcher is best advised to err on the young side in selecting a minimum age.

The maximum age in defining a child is more difficult. Social definitions often consider puberty, marital status, schooling, male or female circumcision, and various social and religious ceremonies as criteria of adulthood. When census data are tabulated according to standard five-year age groups, the investigator is forced to select 19 or 24 as maximum ages. There is no obvious age or social status that can be suggested as a definitive upper limit to childhood across cultures. One benefit of choosing a rather high chronological year of age as a cut-off point is that it extends analytical possibilities. Either

19 or 24 would be possible choices, with the former preferred in societies with young age at marriage and low levels of schooling, and the latter where periods of dependence on parents tend to be long.

2. Classification of Activities

A precise scheme for classifying the activities of children depends on the purpose of the particular study, but there are a number of issues that frequently arise and deserve consideration here.[26]

First, in low-income countries children's participation in various household tasks is sometimes regarded as being economically productive, and sometimes not. The argument for treating it as an economic activity is supported by the fact that it often frees adults to undertake directly productive tasks. Moreover, many household duties, such as sewing and mending, food processing, fuel and water gathering and waste disposal, are clearly productive constituents of subsistence economies. Researchers need to think carefully about such tasks, considering analogous situations in advanced economies, before assigning them to "productive", "economic" or other value-premised categories.

Second, children's involvement in child-care presents some problems since older siblings may be "caring" for younger sibs, or simply playing with them. The researcher is forced to form a consistent interpretation of the nature of the activity. An examination of the intrinsic qualities of children's behaviour - the degree of authority of the older over the younger, the degree of dependency of the younger, the desire of the older to pursue other activities - may reveal no clear criteria for distinguishing work from play. On the other hand, if account is taken of external factors, such as the parents' evaluation of the activity, or whether it is associated with parents leaving the house for marketing, work or leisure, there is a danger that some children will be regarded as working and others not, even though they are doing the same thing. On the whole it seems preferable in cases like this to adopt clear criteria relating to intrinsic characteristics of activities. Even if these criteria are later found to be wrong in detail, the data will be more valuable than if they were collected on the basis of vague and shifting definitions.

Third, given the enormous variety of tasks and work patterns found in even the most simple village economy, researchers have tried to measure multiple-participation through time-budgets and work histories. These show the number and duration of jobs done by children during given periods of time. A dimension of importance that is seldom measured directly is work intensity. Normally job classification is intended to reflect the difficulty of tasks, and for some activities, such as

sweeping, weaving or weeding, this is achieved in rough measure. But other tasks, like fetching water, gardening and gathering fuel, can vary greatly in terms of difficulty, even over similar durations. In very small-scale observational studies efforts can be made to estimate intensity of work, or respirometers can be used to measure energy expenditure during representative work sessions. In larger studies the classification of activities should be made so as to recognise and codify varying work intensities. Preferably, such evaluations should be based on the findings of intensive studies, but if these are not available, time should be spent observing work patterns before deciding on the classification scheme.

As with data on age, the general rule in classifying activities is to collect as much detail as possible within the chosen criteria, and delay any summarising of material until the analysis phase.

3. Calculation of Appropriate Descriptive Statistics

Researchers collecting quantitative data soon learn to think in terms of the shape of frequency distributions of variables. Age distributions are shown as pyramids, while hours worked at a given task may take the shape of a bell (the so-called "normal" distribution), and other distributions may be hyperbolic, double-humped, or straight lines parallel to the axis.

To graph or even tabulate the distribution of all variables in the average study would take an enormous amount of space, and would present the reader with a bewildering array of numbers. Instead, the researcher chooses summary statistics that describe various aspects of the distributions; these are divided into measures of central tendency and measures of dispersion. The problem faced in studies of children's work is the establishment of a proper basis for the calculation of such statistics.

Data on participation are most often presented in terms of the proportions of children of each age undertaking given activities. Should the denominator of the proportion be all children of the age group, or only children who participated in at least one activity and were thus "workers", or those children who could be defined as being "at risk" of participating? In the latter case, the researcher may decide to exclude from calculations of proportions fetching water, for example, those children living in houses with piped water. Likewise, children of landless artisans may be excluded from calculations of proportions farming.

Similarly, in summarising durations of work the researcher may wish to calculate the average number of hours worked by all children, or limit the denominator to those children who worked. The impression gained will be very different. Activities with low participation rates but high hours worked

will have low averages if all children are in the denominator, and high if only working children are included.

The exclusive use of means in presenting results is often misleading and researchers are well advised to calculate standard deviations, medians and modes to demonstrate more fully the shape of distributions. This is particularly important in the analysis of data on age of first participation in economic activities. To say that "children as young as 8 years of age hoe in the fields" is misleading if it is found that only two out of 1,000 children begin at that age; the mean age for beginning hoeing may be 15 (for those who ever hoe), the median 18, and a quarter of all children may never hoe. This example is hypothetical but not unreasonable. When similar information is presented about the full range of children's activities in any society it will be seen that simple generalisations are impossible. Instead, analysts must grapple with descriptions and explanations that reflect the diversity of children's occupations.

4. Reporting of Assumptions and Methodology

Connell and Lipton (1976, p. 124) have complained that a major drawback of Indian village studies has been lack of detail concerning research methodology. The problem is not confined to India, nor to village studies. Sometimes the methodology is omitted for space reasons and presented in a separate, less widely distributed publication. Economists, in particular, abbreviate discussions of methodology because they assume their audience will be disciplinary colleagues who are aware of standard analytical techniques. Definitions and assumptions used in studies are often not presented because researchers regard them as cumbersome or merely mundane, hence not worth reporting. Such reasons are understandable, but none the less unacceptable.

The need for clear reporting of assumptions and methodologies used in studies of children's work has three aspects: the complexity of the subject itself, the variety of disciplines involved, and the lack of an accepted set of standard definitions and methodologies. Readers must be given enough information to evaluate the study critically and researchers the material with which to design follow-up studies to verify the results.

One desirable by-product to be anticipated from a more systematic collaborative study, guided by a conceptual framework such as that presented by Rodgers and Standing, is the development of more standard concepts and methodologies. Initially these will necessarily be based on various culture-specific case studies, but eventually it should be possible for groups of investigators to collaborate on the identification of definitions relevant to specific types of economy. They might also want to prepare methodology handbooks for different

research strategies. These could take the form of model formats for classifying activities; descriptions of techniques for measuring children's participation and duration and intensity of work; sample questionnaires and code schemes; caveats in the design of scientific samples for the study of children's work; and suggestions for the tabulation of research results. Such manuals would presumably be of some interest to researchers currently working on the topic of children's work, but more importantly they would encourage others to enter the field in ways which will avoid both naive errors and unnecessary duplication of efforts.

5. Validation of Basic Concepts

A constantly recurring theme of research on children's work is the vital need to review and validate the basic conceptual framework of our studies. This is the key to defining a "child", classifying activities, and selecting descriptive statistics, and it is the major justification for demanding full reports of research methodology. Some methods of testing the validity of concepts have been mentioned above, but it is well to reiterate them.

First, concepts can be established through literature reviews and analytical procedures of verification. For example, "work" may be defined as any activity undertaken for wage or profit (excess of material returns over costs) in a particular body of literature. When examined in the light of our understanding of a particular subsistence economy, this definition may appear highly restrictive and unspecific. Many activities are found to bring no wage or material return to the child, and some, such as child-care, produce no material return at all. On this basis the concept can be broadened to include activities undertaken as part of a specific subsistence production process.

Second, concepts can be tested against direct observation of children's attributes and behaviour. To verify that child-care is work rather than play, the researcher can observe a number of pairs of siblings (of various combinations of ages) to see how child-care is initiated (by self, or by other), the nature of the child-care relationship, responses to crises (when the younger child becomes hungry, restless, angry or demanding, or when the older sib is tempted by alternative activities), and whether the parents are thus enabled to carry out alternative productive activities. When these and other aspects of behaviour are analysed the researcher may be able to reformulate the concept of child-care to establish it more firmly within the concepts of "work" or "play", or perhaps identify certain types of child-care (sibs of particular ages) that fit clearly in one or the other of these categories.

Third, the concepts can be operationalised so as to be included in formal social survey questions. This may involve

simplification and perhaps modification of the definition to make it acceptable to interviewers and respondents. The survey method involves a number of stages at which concepts are modifiable: compilation of the questionnaire, selection of a community or sample group, coding of responses, summaries and tabulation of codes, and the interpretation of results. Validation of the integrity of basic concepts is necessary at each of these stages. For example, the researcher may operationalise the definition of a "child" as being a person between exact ages 5 and 20 (i.e. completed ages 4 and 19). On the questionnaire, space may be provided for noting a number of estimates of age, with a final box for the interviewer to choose a "most likely age". Intrusion of the interviewer's judgement amounts to a modification of the original definition based on true age. If, during coding, it is found that some interviewers left the evaluation box blank, the coders may be instructed to insert any estimate based on documents; during tabulation the researcher, faced with a very uneven age distribution, may decide to group the ages as 5-9, 10-14, 15-19 and analyse the results according to these categories. Each of these changes modifies the original concept slightly, but if it is then found that no people aged 5-9 undertook any activity defined as "work", the researcher might decide to change the operational definition of a child entirely to 10-19 - thus revising the basic concept. Alternatively, the result might throw the operational definition of "work" into question, opening the way to even more extensive attempts to validate basic research concepts.

Questions of validity are seldom settled, even with the formulation of "standard" classifications, questionnaires and procedures. Exposure to new situations reveals weaknesses in accepted concepts and children's work is particularly likely to raise new issues.

IV. Setting Children's Work in Institutional Perspective

In reviewing general approaches and special issues we emphasised that socio-economic and cultural variations account for many of the difficulties experienced in research design and analysis. For this reason it was argued that such variations should not be isolated from the structure and functioning of the society. For example, an understanding of children's participation in goat-herding demands an understanding of the institution from methods of breeding (or the process of obtaining young animals) through general care, feeding and methods of slaughter to the sale of goat products. Moreover, in considering each stage, the focus is not on the autonomous behaviour of the single goat-herder, but on how that individual relates to institutions such as agricultural extension offices, other goat-herders, veterinarians, storekeepers who sell goat's milk, abattoirs and retail meat sellers.

Most studies focus on individuals rather than social institutions.[27] This is especially true of surveys where the individual respondent is the major unit for data collection and presentation. Institutional variables are then relegated to uni-dimensional indices, such as "years of schooling", "income", "father's occupation", each of which is taken to represent an important aspect of the individual's place in the social structure. In itself, this is unobjectionable, because there are generally very good reasons for thinking that when these variables are compared with others whose vagueness or complexity prevents easy inclusion on a survey questionnaire (e.g. social class, skill, economic status) they will be found to provide useful approximations of the latter qualities. They then become indicators of institutional setting and data on, say, work according to father's occupation are interpretable as showing the way in which a family's economic status can affect the likelihood of children working.

Since the operationalised variables commonly used in surveys have individual meaning, sometimes quite separate from their roles as indicators of broader concepts, there is a danger that analysts may wrongly restrict interpretations and be misled by apparent consistencies in data. Thus, the finding in Indonesian fertility studies that mothers with high education have more children than those with low or no education has sometimes led readers to conclude that increased levels of schooling will lead to increased fertility. In fact as detailed analysis of the data shows, schooling *per se* has little or nothing to do with the determination of fertility levels. Factors such as marital disruption, infecundity, and differences in patterns of breastfeeding and post-partum abstinence set levels of childbearing, and these factors are determined by such things as nutritional standing, adherence to traditional norms, husband-wife economic relationships and relative female autonomy in decision-making, all of which in turn are aspects of what might generally be termed social class. The availability of schooling to women was for many decades a function of class in that only the fairly well-to-do could afford, and were motivated, to send their daughters to school. Thus the high fertility of the well schooled women was less a matter of curriculum than class, and further increases of schooling throughout the society cannot be expected to increase fertility.[28]

By analogy, studies of children's work face the difficulty of properly interpreting variables having both literal and representative meanings. However, many economists are used to regarding income only in its literal sense, while some researchers think of schooling as education, and that in turn purely as a matter of acquired intellectual skills; both groups ignore the institutional setting from which these variables are abstracted and within which these and other factors interact to influence children's working behaviour.

Studies that seek to set children's work in an institutional setting will require much more data than can be obtained through surveys of individuals. Relevant social institutions will have to be identified and analysed. Questions will have to be asked about the nature of power in societies: Who decides whether a child will work? Who bears the costs? Who gains the benefits? How are protests registered? By what standards are hierarchical relationships governed? How does the child develop independence from parents? The answers are contained in an understanding of how institutions shape individual behaviour. Some means will have to be found for marshalling the great variety of such analyses, and the mass of information about individuals, into a coherent whole which will clearly delineate the causes and consequences of children's work in low-income countries. The approach will have to be particularistic; case by case, study by study, gradually refining concepts, describing situations, developing typologies, testing hypotheses. To propose sweeping general theories at the outset would be blatantly to ignore the importance of seeing children's work in the context of institutions. If such theories are tested against the limited data of surveys of individuals, and if variables of deep social meaning are interpreted only in their literal form, there is a risk that the results will be totally misunderstood. Investigators will have to exercise great caution and patience in the conduct of collaborative research aimed at describing the institutional setting of children's work, but they should be rewarded with much richer results than could be obtained by grand theoretical leaps through obscure masses of data.

V. Summary

A long tradition of academic interest in the study of children's work has produced a number of research perspectives, including concern for child welfare, the view of work as an element in socialisation, the role of children in the household economy, the inter-relation of schooling and employment and the socio-economic determinants of children's work. None the less, the literature has yet to provide a set of commonly accepted concepts, and research methodologies have yet to be standardised.

Spurred partially by the International Year of the Child, there is a growing awareness that researchers of different disciplines should co-operate on this topic. At the least there should be a general exchange of information and discussion of value premises, methods and results. Preferably, though, there should be greater co-ordination of efforts through collaborative projects where researchers are forced to make joint decisions as to the structure and conduct of a research programme.

The Rodgers-Standing conceptual framework presented in Chapter 1 of this volume provides a starting point for such collaborative efforts. It is eclectic, and fairly comprehensive. While taking primarily the "child welfare" perspective, it is broad enough to admit studies from different viewpoints. However, experience in other areas indicates that researchers frequently misunderstand the assumptions and methods of other disciplines. Collaboration, then, must begin with a concerted search for a common basis of understanding through standardised definitions and compatible methodologies.

The general approaches used in studies of children's work to date include direct observation, community-level studies, periodic or continuous monitoring, restudies, sample surveys and analysis of census data. Each approach demands careful formulation of research design and operationalisation of basic variables.

Researchers face a number of special issues in the study of children's work in low-income countries. To ensure a commonly accepted operational definition of a "child" it is necessary to adopt criteria based on chronological age rather than social notions of childhood. These data are difficult to obtain in cultures which do not have solar calendars. Activity patterns of children must be thoroughly studied, and consistent criteria adopted to determine what constitutes "work"; and summary statistics must be calculated on the basis of an appropriately selected base - be it all children, only children who work at all, or only children at risk of undertaking particular activities. Because the study of children's work is such a complex matter, it is important that researchers provide full reports of their concepts and methods which are intelligible to professionals from other disciplines. This provides the opportunity for concepts and methods to be validated, both on evidence of internal logic, and through comparison with other approaches.

Above all, children's work must be set in an institutional context, to portray accurately the socio-cultural dimensions of the behaviour, and to avoid simplistic interpretations of variables which have been greatly narrowed and formalised for purposes of analysis.

The institutional setting, the inherent complexity of the topic, the special need for care in defining and validating concepts and developing methodologies, and the incongruous obscurity of a topic of such long-standing interest to researchers and policy-makers, combine to place the study of children's work high on the agenda of all social science disciplines. There is a promise that, in seeking an understanding of this rather special area of human behaviour, we shall gain deeper insights into the nature of the societies of low-income countries. That is a promise we can ill afford to ignore.

Notes

* Australian National University, Canberra, Australia. I am grateful to Benjamin White and Mead Cain for sharing their experiences with me over the various stages of their research. Murray Chapman, Barry Popkin and Pat Quiggin have been helpful in directing me to references, and Valerie Hull made a number of useful criticisms of earlier expressions of these ideas. Above all, I thank Gerry Rodgers, Guy Standing and other participants at the workshop for stimulating me to formalise some of the thoughts I have had about research on children's work.

1 Gaskell noted in 1833 that it was "absurd" to use the term "family" when parents and children saw each other in the home only one day a week (cited in Inglis, 1972, p. 424).

2 Inglis (1972, pp. 474-483) provides a good bibliography for the period up to 1835, while for the late 1800s the reader is referred to the works of Charles Booth, Sidney and Beatrice Webb, and Seebohm Rowntree.

3 For a review of this literature, see Middleton (1970, pp. xvii-xx). Mayer (1970) has collected a series of essays on the contribution of (largely British) social anthropology to the study of socialisation. A recent project of interest is the cross-cultural study of child-rearing organised by Whiting and Child (1953), though they play remarkably little attention to children's work or work-related play.

4 One example of note is the series of international Labour Conventions on children's employment which derive from the "welfare" perspective noted above. Because of their unidimensional character they encourage law-makers to undertake actions which ignore a wide variety of aspects of children's work - such as its socialisation function, contribution to family economy and in some cases its purely recreational aspect. The result is that the Conventions once adopted are commonly ignored where the economic environment is vastly more complex than that assumed. Effective attempts to control exploitation must take this complexity into account.

5 Charles Booth, at the end of his monumental studies of poverty in London, commented: "I have relied first and chiefly on mere average and consensus resulting from the great number and variety of my sources of information. Statements on which reliance could be placed would tend to enforce themselves, and

errors balance each other and drop out of count ... it was all the more necessary that there should be no persistent bias at the centre at which all this varied information was assorted and assimilated. On this the entire value of the work depended" (cited in A. Fried and R. Elman (eds.): Charles Booth's London: a portrait of the poor at the turn of the century drawn from his life and labour of the people in London (London, Hutchinson, 1969; Harmondsworth, Penguin Books, 1971). In contrast many researchers today use a single data source (usually a survey) and a single analytical technique (e.g. regression analysis) in their studies, pleading lack of time or lack of expertise as excuses for not having undertaken alternative approaches in verifying their results.

6 Connell and Lipton (1976, p. 77) report that in a sample of Indian village studies over 54 distinct age classification schemes were used in tabulations.

7 E.R. Leach: "An anthropologist's reflections on a social survey", in Ceylon Journal of Historical and Social Studies, 1958, No. 1, pp. 9-20.

8 The following comments draw on personal experience in workshops on Costs of Children, Household Models of Economic-Demographic Decision-Making, Value of Children, Children's Work, and Nutrition and Fertility. Despite differences in topic format, participants and venue, some common problems arose as people from different disciplines attempted to communicate.

9 Economists, and particularly orthodox neo-classicists, have gained a reputation among those interested in children's employment as being esoteric and chauvinistic, but these same characteristics are found in professionals of all disciplines at one time or another. Social anthropologists are vociferous in defence of their discipline. Nadel argues that there are good reasons for specialisation in disciplines relating to totally different aspects of social phenomena, or in his terms "the transition from one (discipline) to the other appears to be more than merely a deepening of analysis; it gives at least the illusion of stepping into another order of existence, governed by the regularities peculier to it and only there established". By implication disciplines arise not as accidents in the history of science but as outgrowths of the nature of societies under consideration. S.F. Nadel: The foundations of social anthropology (London, Cohen and West, 1951).

[10] A.I. Richards, F. Sturrock and J.M. Fortt (eds.): Subsistence to commercial farming in present day Buganda (Cambridge, Cambridge University Press, 1973).

[11] Some recent methodology textbooks have included "primer" selections on a variety of quantitative and qualitative techniques, apparently in an attempt to "arm" the researcher for any eventuality. For an excellent example, see P.J. Pelto and G.H. Pelto: Anthropological research: The structure of inquiry (Cambridge, Cambridge University Press, 2nd ed., 1978).

[12] For discussions of the method of participant observation see Pelto and Pelto, op. cit.; M.S. Schwartz and C.G. Schwartz: "Problems in participant observation", in American Journal of Sociology, 1955, No. 4, pp. 343-353; and H.S. Becker: "Problems of inference and proof in participant observation", in American Sociological Review, 1958, No. 6, pp. 652-600. R.H. Janes: "A note on phases of the community role of the participant-observer", in American Sociological Review, 1961, No. 3, pp. 446-450, probes the issue of the researcher's establishment of a role within a community, and distinguishes various phases of acceptance. G.D. Berreman: Behind many masks: Ethnography and impression management in a Himalayan village, Monograph No. 4 (Ithaca, NY, Society for Applied Anthropology, 1962) analyses the interaction of researcher and study community in terms of "impression management", asserting that the researcher is "inevitably an outsider and never becomes otherwise ... The nature of his data is largely determined by his identity as seen by his subjects" (p. 21). Clarke goes further to argue that an integral part of fieldwork - and ultimately analysis - is the personal involvement of the researcher, and that this should be reported and analysed with the other information collected in the research. M. Clarke: "Survival in the field: Implications of personal experience in field work", in Theory and Society, 1975, No. 2, pp. 59-123.

[13] For a good over-all manual and an excellent bibliography on oral (or life) history techniques, see L.L. Langness: The life history in anthropological science (New York, Holt, Rinehart and Winston, 1965).

[14] C. Arensberg: "The community as object and as sample", in American Anthropologist, 1961, No. 63, pp. 241-264.

[15] An early, but still relevant, discussion of the need for indirect data collection instruments in community studies is Richards' presentation of methods of conducting a village census: A. Richards: "The village census in the study of contact", in Africa, 1935, Vol. 8, pp. 20-33. Also of interest are R. Firth: "Census and sociology in a primitive island community (Tikopia)", in Proceedings of the World Population Conference 1954, Vol. 6 (New York, United Nations, 1955), pp. 117-125; and E. Colson: "The intensive study of small sample communities", in R.F. Spencer (ed.): Method and perspective in anthropology (Minneapolis, University of Minnesota Press, 1954), pp. 43-59. For a more recent treatment, see Carroll, especially Chapters 1, 2 and 10, which deal with general issues of analysing population data of relatively small communities: V. Carroll (ed.): Pacific atoll populations (Honolulu, University Press of Hawaii, 1975).

[16] A taste of that tradition can be obtained from collections of articles edited by S.T. Kimball and J.B. Watson: Crossing cultural boundaries: The anthropological experience (San Francisco, Chandler, 1972); D. Hymes: Reinventing anthropology (New York, Random House, 1969); and R. Fox: Encounter with anthropology (New York, Harcourt Brace Jovanovich, 1968).

[17] Texts of interest are C.A. Moser and G. Kalton: Survey methods in social investigation (London, Heinemann, 2nd ed., 1971); A.N. Oppenheim: Questionnaire design and attitude measurement (London, Heinemann, 1966); and especially E.R. Babbie: Survey research methods (Belmont, Wadsworth, 1973). The novice fieldworker on the verge of undertaking a project should also read some of the essays collected in B. Dasgupta (ed.): Village studies in the Third World (Delhi, Hindustan Publishing Corporation, 1978), especially those of Srinivas, Norman, Lipton and Moore and Lipton.

[18] T.S. Epstein: "Re-surveys and re-studies of rural societies", in B. Dasgupta (ed.): Village studies in the Third World, op. cit., pp. 127-131.

[19] In one of the classic examples, Oscar Lewis undertook a restudy of Robert Redfield's study community in Mexico to describe change but ended up writing a stinging reinterpretation of Redfield's findings. See O. Lewis: Life in a Mexican village: Tepoztlan restudied (Urbana, Ill., University of Illinois Press, 1951); R. Redfield: Tepoztlan: A Mexican village (Chicago, University of Chicago Press, 1930).

[20] J. Wyon and J.E. Gordon: The Khanna study: Population problems in the rural Punjab (Cambridge, Mass., Harvard University Press, 1971).

[21] The fact that an investigator has instituted some form of randomness in selecting a sample does not make it scientific. The basic criterion for a scientific sample is that is should be designed in such a way that standard errors of sample estimates can be computed.

[22] R.E. Mitchell: "Survey materials collected in the developing countries: Sampling, measurement, and interviewing obstacles to intra- and inter-national comparisons", in International Social Science Journal, 1965, No. 4, pp. 665-685.

[23] This being said, it is important to note that the Laguna study in the Philippines surveyed 573 rural households from 34 rural barrios, and collected somewhat more detailed data than listed here (see Boulier, 1976, for one report of the results). However, experience suggests that most survey researchers cannot obtain budgets, staff (professional, managerial and field) and background data comparable to the Laguna project. In any case, by most measures, a survey of around 600 households is fairly small. National samples are more often drawn in the thousands or tens of thousands. One is tempted to wonder whether the Laguna project might not have obtained equally interesting results had it been a community study rather than a sample survey, and in the process saved both money and effort.

[24] Standing (1978b, p. viii) concentrates on female participation because it "has been most sensitive to economic and social influences". See also the articles in Standing and Sheehan (1978).

[25] A somewhat dated review of definitions is presented in Y. Miura: "A comparative analysis of operational definitions of the economically active population in African and Asian statistics", in World Population Conference, 1965, Vol. 4, (New York, United Nations, 1967), pp. 372-379; while Standing (1978b, Chapter 2) provides a critique of a variety of measures of work.

[26] Neale (1964) discusses problems of classifying activities from a cross-disciplinary perspective. His comments serve as a useful starting point for a deeper analysis of what constitutes an "economic activity".

[27] The term "institutions" in this context does not refer only to formal legitimised groupings (like banks, governments and marriage) but also to patterns of group behaviour, such as the "institutions" of football-fan rowdiness, patron-client relationships, and "machismo".

[28] Fuller discussions of this point are found in Hull and Hull (1977) and T.H. Hull, V.J. Hull, and M. Singarimbun: "Indonesia's family planning story: Success and challenge", in Population Bulletin, 1977, No. 6.

Chapter 3

The Employment of Children in Kano (Nigeria)

by Enid Schildkrout*

I. Introduction

The history of childhood in Europe, which has been increasingly well documented in recent years, reveals a close relationship between changing modes of production and changing roles of children.[1] The relationship between economic structures and children's roles can be studied historically in the industrialised countries of Europe and the United States. It can also be studied as a set of contemporary social and economic problems in low-income countries and in certain economic sectors of industrialised countries.

Between 1976 and 1978, the present writer conducted research in Kano, northern Nigeria, on the relationship between children's activities and the socio-economic status of their parents; on the relationship between children's roles and school attendance; and on variations in children's roles according to a number of socio-economic and cultural variables including age, sex, birth order, family size, household structure, and parental occupation. Variables which might at first glance seem to be biologically given - age, sex, or birth order, for example - are seen here as socio-economic and cultural variables because their significance derives from the value placed upon them in the particular society in question. It is a premise of this chapter that none of the variables used have intrinsic, universal or biologically given value; rather, all variables must be defined in terms of the socio-economic conditions and cultural values which give them meaning.

This chapter discusses some of the underlying conceptual issues which must be considered in any research on the economic roles of children. Examples are primarily drawn from the author's Kano study, although the issues discussed are of more general interest. We have attempted to clarify some of the unique characteristics of child labour which must be considered in any cultural context. We have also attempted to delineate those cultural dimensions along which variations in values regarding children can be plotted. For example, while the biological dependence of children on adults is universal and inevitably leads to an asymmetrical authority relationship between adults and children, the way in which this authority is

distributed and used varies according to a number of socio-economic and cultural factors, including the nature of family structure, the relative size and wealth of the family unit, the mode of production, and the nature of the sexual division of labour.

There are two ways of approaching the question of child labour. On the one hand, one may look at the lives of children or at the nature of childhood in particular societies, and examine the effects of various economic and social conditions on children. Research in this vein includes historical and comparative studies of changing sociocultural definitions of childhood (e.g. Aries, 1962; de Mause, 1974; Gordon, 1973), studies of the relationship between specific socioeconomic factors such as class or ethnicity and children's activities and growth (e.g. Coles, 1964, Fraser, 1973), and studies of the effects of biological factors such as sex, age, or birth order on children's roles. On the other hand, there are studies that look at child labour as an economic resource and then analyse the economic and social significance of this resource. These include studies of the effects of child labour on fertility behaviour, the use of educational opportunities, and female employment. Measurement of the economic value of child labour is obviously important in this second type of study, and quantitative techniques have been developed to deal with the large samples that are generally obtained. Qualitative methods tend to - but need not - dominate research in the first type of study where children themselves are the principal objects of inquiry; however, as noted in Hull's chapter, the two techniques and the two types of question should be seen as complementary.

II. The Kano Example

The research which the author conducted in Kano was primarily directed to answering questions about the effects of various social, economic and cultural factors on children. Both qualitative and quantitative data were collected, including census and biographical data on 112 children and their families. The major thrust of the research was on the effects of parental economic status on children's activities. It was assumed that there would be a relationship between parental economic status, including occupation, income and expenditure patterns, and children's roles, and that children in low-income families would perform more work and attend Western school less frequently than children from high-income families. Were this to be the case, child labour could be seen, as it has often been, as primarily a response to poverty. However, many cultural factors intervene to prevent a simple conclusion relating income to the time children spent working. Although the quantitative data collected during the field work are only beginning to be analysed, a preliminary conclusion, based on scanning the daily

records of the activities of the children (see the annex to this chapter), is that, while a clear relationship between parental income and children's activities exists at the extreme ends of the socio-economic scale, among the majority of families in the middle-income range many cultural factors intervene which determine children's roles and which are independent of economic factors. Except in families which are barely meeting subsistence needs and in families with substantial surplus income, economic factors seem to be of only secondary importance in determining children's activities. As we will try to show below, even such clearly economic activities as the street-trading of young girls cannot be understood in simple economic terms; production of income is only one aspect of this complex behavioural system. Similarly, attendance at Western school is not correlated with income, but rather with cultural values that obtain among people who are members of particular occupational, rather than income, groups.

The Hausa population of Kano City is entirely Muslim. It is not a population of recent migrants. The Habe segment of the Hausa-speaking population has been settled in Kano for many centuries, while the Fulani segment traces its origin to the followers of 'Usman dan Fodio, the Muslim reformer who led the conquest of the ruling Habe aristocracy in the early nineteenth century.[2] Today, these groups are linguistically, religiously and culturally integrated into the Hausa population; it can be, and often is, questioned whether the ethnic labels of Habe and Fulani have any real descriptive value except in historical terms. Certain positions in the traditional political hierarchy are still reserved for men of Fulani descent, but access to educational opportunities in the modern sector does not depend upon ethnic identity. Historically, Fulani and Habe men did follow different types of occupational specialisations and this pattern is still in evidence to the extent that men of Fulani descent tend to be civil servants and administrators, while men of Habe descent are more often self-employed traders or craftsmen, or clients or apprentices of traders and craftsmen. The present study was conducted in two wards, or neighbourhoods, of Kano, each being characterised by one or the other of these occupational patterns. Differences in the occupations of the men are paralleled by differences in the occupations of women and children. In one ward a majority of both men and women are involved in trade, as are their children; in the other ward far fewer men and women are involved in trade (Schildkrout, 1979).

All Hausa married women in Kano - Habe or Fulani - live in purdah or seclusion. They do not leave their houses except to seek medical attention, to attend ceremonies such as marriages, namings and funerals, and occasionally to visit relatives. They are dependent upon children for performing their domestic roles as wives and mothers, and for carrying on their

subsidiary occupations in the cash economy. The interdependence of women and children is crucial to understanding the roles of both. Any change in the activities of children, such as the change now occurring as a result of the government's campaign to enrol all children in primary school, profoundly affects the status of women - not just the status of women in the next generation, but also of those whose children are removed from full-time participation in the domestic economy. Likewise, the intensification of purdah which has occurred in northern Nigeria in the past few decades has probably placed an increasing burden on children, for it is the use of children in the domestic economy which makes purdah possible.

III. Socio-economic and Cultural Aspects of Child Work

The work of children has certain unique characteristics, the most frequently noted being its relatively low cost. However, the cost of child labour cannot be approached as an isolated variable, for child labour has social characteristics that modify its economic aspects. For one thing, this cost should be evaluated in relation to the total life experience of the child and expectations regarding the child's future growth and economic contribution. This equation has been noted by those writers who evaluate the trade-off frequently made between education as a long-term familial investment, and child employment as an immediate benefit. Furthermore, children rarely make their own decisions about employment, but rather form part of a larger unit. This is implicit in studies where the labour of children is seen as a way of reducing the opportunity cost of adult female employment. Cultural attitudes towards childhood, the level of structural differentiation in society (i.e. whether education is a function of the family or of educational institutions), the structure and function of the family and its relation to production, the definition of adult sex roles and the sexual division of labour, are all factors which determine the pattern of children's activities.

As an illustration of the way in which cultural factors affect the definition of children's roles, we may look at the example of street-trading in Kano. It is often assumed that young girls engage in street-hawking to augment family income or procure subsistence. In Kano this is seldom the case, for the vast majority of girls who engage in street-trading are not contributing their earnings to their own or their families' subsistence. Rather, they are performing an activity which is a culturally prescribed prerequisite to marriage. Only in the most wealthy families is street-trading actively discouraged, and only in the poorest do the proceeds contribute to subsistence. Not only do young girls through street-trading augment their mothers' incomes (which are not usually used for housing, food

or basic clothing - all of which are the responsibility of the Muslim husband), but they also attract suitors and earn the income necessary to purchase their own dowries. When girls give their profits to their mothers, the mothers usually use this to purchase their daughters' dowries, the cost of which has escalated in recent years with the greater availability of consumer goods and the increasing involvement of all Nigerians in the cash economy. Although the need to procure a dowry is unquestionably an economic need, street-trading must also be seen as a status-seeking activity. Attempts to comprehend or alter the streettrading system must focus on the cultural aspects of Hausa marriage, not simply on the question of the procurement of income by children.

Another way of looking at juvenile street-hawking activities is to say that children in Kano are responsible for much of the small commodity distribution in the city and for virtually the entire distribution of cooked food, with the exception of meat, which is still sold by members of the butcher group (traditionally an endogamous subgroup in Hausa society). The specialisation of children in petty trade, and particularly in the trade of cooked food, is related to the involvement of most Hausa men in salaried occupations, craft production and large-scale trade, to the exclusion of trade in petty commodities and prepared food. However, this specialisation cannot be understood without also taking into account the religiously sanctioned seclusion of married women in their homes and their simultaneous pursuit of economic activity from within the confines of purdah.

1. Adult-child Relationships

(a) Dependency

Among the conceptual issues which must be considered in understanding children's work is the nature of the mutual dependency which exists between adults and children. The nature of this relationship varies from one society to another, but in most cases the dependency which exists between adult employers and child workers differs markedly from other employer/employee relationships. It is common in contemporary European and American society to recognise only the dependence that exists on the part of the children towards adults and to ignore the dependence (other than the purely emotional) of adults on children. This view results, in part, from the insignificance of the economic contribution of children in advanced industrial societies. In most other societies, however, particularly in low-income countries, the dependence of adults on children is considerable, and has a significant material base: children perform important work in the home or in family enterprises; children are often the only prospective support for

parents in old age; and children facilitate certain types of adult sexual division of labour. Apart from economic dependence, there are also forms of social and cultural dependence of adults on children which must be recognised.

In Kano, for example, male dominance, the seclusion of married women, and the rigid social and spatial segregation of the male and female domains (Schildkrout, 1978a, 1979) could not be maintained without children who are not yet strictly bound by gender-determined roles. Children's activities complement those of adult men and women; children are not merely performing adult roles in a less efficient way or simply learning them, as many studies of socialisation would suggest. Children are the only persons in Hausa society eligible for performing certain tasks. Hausa men, for example, are not allowed into each others' homes unless they are in certain categories of close kinship, while married women are not allowed to leave their houses except for very specific and limited reasons. Thus married women cannot carry on their daily domestic tasks without servants or children. Children, even more than women who are past menopause and therefore no longer bound by the rules of seclusion, are free to go in and out of their own and each others' homes. Adulthood is characterised by rigid segregation according to gender, but children may cross the boundaries between male and female domains. Children go to market, they deliver messages, they purchase and deliver cooked food from one house to another, and they serve as escorts to women on the rare occasions when they do go out. The roles of children are distinct from and complementary to the roles of adults, and they cannot be understood, or modified, unless this complementarity and interdependence is recognised.

(b) Authority

The mutual dependence that exists between adults and children in many societies does not imply the existence of a symmetrical authority relationship, since adults universally have some form of power over children. Many factors determine the distribution of authority, including the nature of the kinship system, the type of political system and the sexual division of labour.

In Kano, patterns of adult-child interaction symbolically express this asymmetrical authority relationship. Children do not address closely related adults by personal names, but use kinship terms which are felt to show more respect; adults do not "play" with children, except infants; children are expected to demonstrate respect for adults in formal greetings and in silent obeisance. Children and women are expected to defer without question to the orders of men. These ritual expressions of respect can also be seen as demonstrations of adult

dependence on children, as well as being expressions of children's obvious subordination to adults, for the ritual of respect is in some ways contradictory to the actual power children have in the home. The men of Kano are often away from home, while seclusion obviously limits women's ability to control children and enforce their commands. Despite overt obedience, Hausa children commonly decline to do errands by claiming, for example, that another adult with greater authority has requested an errand at the same time. Often, the limitations on adults' spatial mobility prevent them from exercising their formal authority.

The use of adult authority over children regarding work is also limited by other aspects of the adult-child relationship. When child labour is embedded within a kinship system, certain obligations mitigate against the unrestrained use of this authority for economic gain. Cultural norms prescribe various forms of nurturance in all societies, and these norms may be in contradiction with the exploitation of children as a source of labour. Attitudes on the significance of gender in children, such as the idea that certain tasks are appropriate only to children of one sex, and attitudes on children's ability to perform certain tasks, for instance to handle money, are examples of ways in which cultural norms limit the use of child labour and prescribe specific forms of nurturance.

Extreme abuse of child labour, such as that which occurred in the United Kingdom during the early industrial period, almost always involves situations in which the use of child labour has been removed from the nexus of kinship obligations. The adult-child relationship then differs little from other employer-employee relationships, except that the relative physical powerlessness of the child can increase the child's vulnerability. Cases of "fake apprenticeship" are similar abuses in that, although kinship may be used as the justification of the relationship, the norms of kinship are ignored. This is an increasing problem in areas of the world where class differences have developed rapidly and cut across kinship ties: examples of poor relatives' children serving as household help sometimes fall into this category (Okediji, 1975). More frequently, however, the extensive use of the idiom of kinship - even for non-biological relations (sometimes called "fictive" kin) - entails the recognition of obligations of nurturance and support that kinship universally entails, albeit in many different ways.

Special attitudes toward first and last children and customary obligations to foster the children of relatives are also means by which the exploitation of child labour is limited. Among the Hausa, the last child, known as auta, is typically indulged, while the first is avoided (often causing problems in research design, since women frequently fail to mention their first-born child). This is a ritual avoidance, but it has many behavioural

correlates. It is often expressed in the institution of fostering, wherein the first child is raised by relatives of one of the parents. Whether labour demands made on first children are more or less than those made on other children among the Hausa is a question which we hope to be able to answer once our quantitative data are analysed.

In many African societies, for example the Gonja and Dagomba in northern Ghana, fostering among relatives is seen as a form of education, the foster child being an apprentice to the foster parent.[3] In many African societies the obligations of foster parent to child include meeting the expenses of the child's marriage. In Hausa society this has a very direct effect on the use of child labour, for the proceeds of most of children's work, particularly in urban areas, are seen as a contribution to the child's own marriage.

2. Allocation of Child Labour

It is important to note that adult authority over children is not necessarily vested in parents. Adults of different ages often have different rights over children, and distinctions must be made between the rights of parents, grandparents, older siblings and other relatives. In African matrilineal societies, for example the Ashanti, the mother's brother often has greater authority over a child than the child's father. Political or religious leaders, for example Qur'anic teachers in the Muslim societies of western Africa, may have greater authority than parents, even though this authority is delegated to them by parents.

The right of adults to allocate their children's labour to others as well as to use it themselves needs to be explored further. Often, the distribution of the services of children is overlooked in the literature on child labour owing to the emphasis on fertility and family size. In Ghana we observed that patterns of child fostering were related to women's need for child helpers in their market trade (Schildkrout, 1973). In Kano, also, women often foster relatives' children when they need them to help with work. The most frequently cited cause of women changing occupations, for example from selling cooked food to embroidering caps, is changes in the supply of child help. In interviews with 84 women regarding their occupational history, this pattern emerged repeatedly.

The particular rights that adults delegate are also variable. Cases of children being used as pawns for debt have been noted in the literature in Africa,[4] but this practice does not seem to have occurred among the Hausa (although slavery did exist, and slaves included children). Similarly, instances where children work for wages that are paid to the parents have occasionally been noted but the practice seems to be rare. In Ghana, migrants to rural cocoa plantations sometimes send

their children to the cities to work as housemaids; in some cases the parents visit periodically and collect the wages. When there is no kinship relationship between foster parent and natural parent wages are usually paid, but even in these instances the adult employer accepts certain parental responsibilities. Most frequently, children's labour is delegated as part of a fostering relationship which is conceptualised as a kinship relationship. In Africa, at least, the use of a child's labour is rarely separate from other parent-child rights and obligations. Even in fostering relationships, natural parents in Africa do not relinquish all of their rights over and obligations towards their own children.

The most common forms of delegation of child labour in Africa, outside the context of kinship, are systems of formal apprenticeship and traditional Qur'anic schools. In the case of young children, apprenticeship is usually integrated into a fostering relationship. In the case of older children, straightforward apprenticeship is the usual arrangement (Callaway, 1973; Verdon, 1979) but the apprentice is free to leave his employment. In a sense, it is questionable whether this form of children's work should be considered "child" labour at all, since the labour is not part of the set of rights and obligations which define the status of a child in an adult-child relationship. This raises an important conceptual issue that we will turn to shortly: the problem of defining a "child".

Parents in northern Nigeria today still send their children to traditional Qur'anic schools to learn the Qur'an and other Islamic texts with a specific teacher or malam. Despite the increase in Western education, this long-established and revered system of education has continued, although it has been modified in recent years.[5] In the past most boys were sent to rural Qur'anic schools for several months every year, and some stayed several years. Today boys from town seldom attend these "bush" schools, but malams in town still receive students from rural areas on a seasonal or annual basis.[6] The malam receives only minimal payment for his services from parents, and the work the children do on his farm or in town is regarded as compensation for the teacher's services and support of the child. In Kano, Qur'anic students, known as almajirai, are often self-supporting. They sometimes work for the teachers' wives by helping in domestic chores and trading, and in many cases these children beg for food or money. As almsgiving is positively sanctioned in Islam, most children are able to support themselves in this way. Some also do odd jobs such as portering, hawking for a commission, sweeping and cleaning gutters. In our sample for Ward A, described below, six such boys are included, thereby lowering the percentage of boys attending primary school.

3. Differential Control over Child Labour within the Family

Even within the family the distribution of control over child labour is an important issue for empirical study. Women sometimes have greater control than men over children's labour, even though men are politically dominant. In western Africa, where women's incomes are typically kept separate from household budgets, control over child labour often enables women to divert resources from the male to the female economic domain. This depends, of course, on how distinct these domains are. In Kano, men are responsible for providing housing, food and clothing for their wives, children, and elderly widowed or divorced mothers. Women, however, generally cook only one meal a day for their families. They purchase the other meals from other women with the money provided by their husbands. Most women engage in income-producing occupations, and many are involved in preparing and selling cooked food. The income from these activities is kept by the women and used for themselves and their children to purchase supplementary food or clothing and for the children's marriage expenses. It is also used in female gift exchange, as business capital, and as a source of security in case of divorce, which is common. Men and women can be seen as participating in separate but interlinked economic spheres. By taking household expense money and using it to purchase cooked food from other women, resources are diverted from the male into the female domain. Women are able to do this through their control over child labour, since children buy the ingredients for cooking the food, and they are the ones who go from one house to another with bowls of food or money to purchase it.

In the Kano study, the two wards, or neighbourhoods, which were studied are referred to here as A and B. In ward A, two-thirds of a sample of 52 primary school age children were attending both Western and Qur'anic school (71 per cent of the boys and 76 per cent of the girls; 88 per cent of the boys if the almajirai are excluded). In ward B, of a sample of 57 children, 75 per cent of the boys and only one girl (4 per cent) were attending Western and Qur'anic school. The reasons for this difference in school attendance between wards are explained in more detail in Section IV.2. In any case, variations in the father's income were not the main cause. However, the mothers and female caretakers of the children in ward B were, as a group, earning over three times the income of women in ward A. (Tables 5 and 6 omit 13 women who were not in seclusion; therefore the actual figures are somewhat different.) The husbands' incomes in both wards ranged widely, but this variation did not differentiate the two wards. In both wards, those women who traded in cooked food and petty commodities earned between two and three times more than women engaged in non-trading occupations such as embroidery,

hair plaiting, or pounding grain (see tables 5 and 6). These non-trading occupations do not require the daily services of children, whereas trading utilises children regularly for procuring supplies and buying and selling the finished products. In ward B, among the married women in purdah who traded in cooked food, those who had children selling the food in the street earned almost twice the monthly income (25.66 versus 14) of women who did not use children. This clearly is related to the reluctance of people in this ward to send their daughters to school, for very few schoolgirls engage in street-trading and none are able to do so on a full-time basis. The number of secluded women traders who did not have children helping them was small (only three), and even these women relied on children to come to their homes to purchase the food they cooked, as well as to buy ingredients (see table 6). All the women who trade in perishable commodities rely on children, unless they are no longer in purdah themselves. The latter category consists, for the most part, of divorced and widowed older women who have no expectation of remarrying. These women do not appear in the tables presented here.

4. Problems of Definition

(a) Work

The data base of many statements about child labour is often marred by an inadequate and inconsistent definition of work as well as by value judgements. Since much research on this subject has been, and will continue to be, based on fairly large-scale surveys as well as on government census data, it is important to be clear about the definition of operational terms and concepts. The investigator's concept of work is often very different from that of the informant; this is a particularly difficult problem in research using questionnaires.

The definition of work most often used in labour force surveys and censuses is largely based on participation in the wage labour force, while most children's work occurs outside this sector. Using wages as a criterion of definition would be by far the simplest solution were it not grossly inadequate. For the most part the International Labour Office's estimate of 56 million working children is based on wage labour statistics supplied by member countries, although the ILO has repeatedly noted that "many more" children are engaged in agriculture. The criterion most frequently used to define unpaid activities as work is whether or not the activity contributes to production. This approach has been used in many studies that have attempted to analyse the value of children from an exclusively economic point of view (e.g. Ridker, 1976). Measuring children's productive output has proved to be difficult, since in many cases their contribution is indirect. For example, are

Table 5: Occupations and income of secluded women in ward A

Occupation	No. of women	Percentage of women	Average monthly income*
None	4	13	0
Administering credit society	1	3	₦5.00
Sewing men's caps, knitting, embroidery	9	28	₦5.80
Machine sewing	3	9	₦5.00
Hair plaiting	2	6	₦5.00
Selling cooked food and/ or trading without children hawking	5	16	₦11.25
Selling cooked food and/ or trading with children hawking	8	25	₦12.81
Total	32	100	₦7.53

* ₦1.00 = $1.60 in 1977.

Table 6: Occupations and incomes of secluded women in ward B

Occupation	No. of women	Percentage of women	Average monthly income
None	0	0	0
Sewing caps	6	17	₦5.80
Hair plaiting and sewing caps	2	6	₦9.50
Machine sewing	3	9	₦7.50
Pounding grain	2	6	₦7.50
Selling cooked food and trading without children hawking	3	9	₦14.00
Selling cooked food and trading with children hawking	19	54	₦25.66
Total	35	101	₦17.74

boys who spend their day playing in the fields and scaring away birds working? They may not perceive their activity as work, nor may their parents, yet it may have a positive effect on productivity.

Child work that could be considered as service rather than production has often been ignored. Similar problems have been encountered in relation to the unpaid domestic work of women, although there is an increasing awareness that housework deserves recognition and remuneration. Children who perform errands for their mothers, care for younger siblings or assist in domestic chores, are contributing to the maintenance of their households as well as reducing the opportunity cost of women's work, although they are not generating income. Their activities are unquestionably an economic asset, for if children did not perform these tasks other domestic help would have to be employed. The communication of information is obviously a crucial service in any economic system; in Hausa society, most of this work too is done by children. Better than any adult, children know who is selling what, where, and for how much. We have already mentioned the role of children in small commodity distribution in Kano.

Definitions of work, particularly of children's work, are highly variable and differ according to cultural and economic circumstances. In industrialised countries with wage-based economies, universal formal education and long periods of schooling, we find low rates of child employment, except in the most depressed economic sectors (e.g. amongst migrant farm workers in the United States, or amongst peasant agriculturalists in southern Europe). With low rates of child employment, the claim that children's "work" is synonymous with education has become a normative argument. In countries where most children have no productive role, the prevailing conception of childhood is that it is a kind of rehearsal for adult life, and that most children's activities are, or should be, learning experiences. This folk view of childhood has found its way into much of the literature on socialisation, child psychology and education. This is, however, an ethnocentric viewpoint which complicates cross-cultural comparison and makes clear conceptualisation of terms difficult. If childhood is defined primarily as a period of "becoming" and if all experiences are regarded as being educational, then children's work activities are either not recognised as such, in which case their social significance may be ignored, or they are morally judged as being outside the "proper" use of children's time. In either case, this view of childhood reflects the particular socio-cultural and economic circumstances of children in industrialised Western countries, and is perhaps part of the reason why many demographers and economists have turned to a simple measure of labour force participation as the criterion for defining child labour, even though it is inadequate.

Just as the Western view of childhood reflects a particular set of economic, social and cultural circumstances, so other definitions reflect special situations. In interviewing children and adults in Kano, I was often told that when 3-year-olds are playing imitative games such as "going to Mecca", "cooking food for sale", "shopping", or "marriage", they are working; that is, play is the work, the appropriate activity of children of a certain age. When a Hausa girl is 9 or 10 she may start making tiny cakes for sale to children. These cakes are made of flour and water and fried in a small quantity of oil. They are about 5 cm in diameter, and they are not food that any adult would consume. However, children buy them for cash and even obtain credit. This activity generates income (one girl obtained enough money to buy a pair of shoes), but it is regarded, nevertheless, as play (wasa), for at this age girls are aware that cooking is an activity performed by adult women. Cooking is part of the adult female role, initiated by marriage, although adult women also cook to earn money. In other words, remuneration is not the main definitional criterion of work in Hausa culture; there are many activities which produce income which are not regarded as work. Work can only be defined in relation to the age and sex of the person performing a particular task and in the context of the cultural expectations appropriate to this person's status. If a 12-year-old boy spends time minding a baby this is not considered work, although it is regarded as work if a married girl of the same age does it.[7] These definitions are changing among the Hausa, as elsewhere, and also vary according to local ecological and economic circumstances. The expectations for children in farming families, for example, are clearly different from those in urban settings in that they include much more agricultural labour. Formerly, most Hausa adolescent boys were expected to begin earning their own living by doing farm work or odd jobs for pay. This was a pre-condition for marriage, in that boys were expected to contribute to their marriage expenses. Today, with longer periods of Western education in addition to Islamic education, these expectations are changing.

Most of the Hausa children's activities that are considered to be work - particularly in the case of children under 12 years of age - are tasks performed within the context of a relationship of mutual dependence between an adult and a child. After the age of 12 many children are partially self-supporting. Girls are usually married between 10 and 15, often by 12, and boys begin to earn their own incomes. Western education is changing this pattern, but the traditional conception of children's work among the Hausa is that it is an activity defined in relationship to the work of adults. This is linguistically demarcated in Hausa. The term for work is aiki, but this term is rarely applied to children's activities. Aike-aike refers to

small jobs and is sometimes applied to children's activities. When we examine the terms specifically used to describe the activities of children we must turn to the related word aika, "send". The term aike refers to an errand and aikace-aikace refers to small jobs. The most common way in which children express their work roles is to say "I was sent" to do a particular task. Given the fact that a very large part of children's work consists of errands, and that in Hausa society the most significant thing about the work roles of children is the mutual interdependence between adult and children's roles, it is interesting to note this linguistic relationship between the words for "work" and "send".

This discussion of the importance of understanding our own folk concepts, and of understanding the concepts of those we are studying, suggests that any adequate definition of child employment will have to take into account the cognitive framework in which work is performed. In terms of research method, as suggested earlier, we ignore the cognitive dimension at our peril, particularly if questionnaires are used. Since children perform a great many tasks that are only indirectly linked to production and the generation of income, but which none the less have economic value, appraisal of their economic significance is only possible if the whole range of children's activities is considered, regardless of whether or not these activities fit our own ethnocentric definitions of work.

Up to now, most definitions used in comparative research have emphasised the economic basis of child labour. The "cause" of child employment has most often been ascribed to poverty, and it has been assumed that increases in income levels will inevitably produce reductions in the use of child labour. However, in so far as the "causes" of child labour may include non-economic factors, our analysis will benefit if our operational definition allows us to consider activities which do not directly contribute to productivity or income. One possible working definition of children's work might be "any activity done by children which either contributes to production, gives adults free time, facilitates the work of others, or substitutes for the employment of others". This definition is preferable to others in that it is more inclusive, although it too leaves many problems unresolved. For one thing, such a broad definition still leaves open the considerable problem of quantifying the effort we identify as labour. It also does not distinguish child labour conceptually from any other form of human labour. Moreover, the definition might include activities which the actors do not identify as work, such as many of the income-producing activities of Hausa children; or it might include activities which are considered to be work in one society, but not in another, such as the carrying of messages or gossip from one house to another.

(b) Child

Problems of definition also arise when we turn to the concept of "child". This, too, is an important issue in survey research using questionnaires, since terms such as "adult" and "child" are often used in situations where chronological age is unknown. In using such categories, it is important to clarify whether the terms refer to chronological age, to status, or to dependency of a certain type, and whether they have different meanings according to sex and kinship relationships. In Western society we rely so heavily on chronological age that we often forget that this way of calculating age is unusual. Western practice is, in part, the result of our educational system which has become increasingly structured according to annual age grades (Aries, 1962). However, systems of age classification are very variable.[8] The complex classification systems of eastern Africa, among the Samburu of Kenya, for example,[9] define social roles according to age, but the categories are based on seven-year cycles. In common with many other peoples, Hausa age categories differ according to sex. A Hausa girl of 10 or 12 is often married, and once married she is classified as a woman, mata. The word for woman in Hausa is the same as the word for wife. Hausa female life-cycle categories are jinjiniya, infant; yarinya, girl; budurwa, maiden (virgin); mata, wife (woman); and tsohuwa, old woman. There are several other categories for adult women: a divorced and widowed woman is a bazawara and an unmarried (inevitably also divorced or widowed) woman or courtisan is a karuwa. All of these terms in some way express a woman's sexual and/or reproductive status as well as her approximate age; they all indicate whether or not she is of reproductive age and her current status in relation to men. Marriage is the important rite de passage which changes a female's status from child to adult woman, and it is meant to correspond to menarche. Thus, whatever domestic tasks the 12-year-old married Hausa women perform are classified as work, but she would not be described, by the Hausa, as a child. In any survey research, this category of what Westerners would call "child" labour would inevitably be overlooked by Hausa respondents.

Boys, on the other hand, may be well over 20 years old before they are considered to be adults. The life-stages for boys are jinjiri, infant; yaro, boy; tuzuru, bachelor; miji, man; and tsoho, old man. The term gwauro refers to an unmarried person, usually male, who was formerly married. Marriage also marks the transition from childhood to adulthood for men. However, men are expected to be economically productive, not simply capable of sexual reproduction, before they marry and they are often over 20 before this transition occurs. As in many other societies, the term yaro, boy, is also used to

refer to a subordinate, regardless of age.

The definition of status in terms of age can also be affected by kinship relationships. In a polygamous society such as the Hausa, age and generation can become very asymmetrical even in the same family. Half-siblings may be as far apart in age as the duration of a man's reproductive capacity. Persons of the same chronological age and in the same family may be in different generations if, for example, a man's children, grandchildren and even great-grandchildren are living in the same household. Both chronological age and generational kinship status define authority relationships. Therefore, in order to understand the context of children's work activities, it is necessary to take both of these dimensions into account.

IV. The Analysis of Child Labour

Research on child employment must be conducted at two levels - societal and individual. The first provides the economic, social and cultural context within which to analyse the second, that is, individual child activity. Quantitative and qualitative data can be obtained on both analytical levels, depending upon the research method. Data on the "macro" or contextual level is commonly expressed in quantitative terms, largely because of the methods employed and the data base sought by demographers and economists. However, observations of individual children can also be analysed quantitatively, as in the Kano study where we map the pattern of children's activities on to data concerning their socio-economic status. In this study, we are interested in determining the most important factors explaining variations in children's roles within that particular society: Does the economic status of the child's family affect the child's role? How does birth order, age, sex, and parents' marital status affect children's roles? What effect does Western education have on the pattern of children's activities and on the economic activities of their mothers, whose dependence on children we noted earlier? To answer questions on this level of intra-societal variation it is still necessary to specify the broader socio-economic context in which this variability occurs.

What follows is not meant to be an exhaustive description of all the socio-economic variables which may affect children's roles. Rather, it is a discussion from an anthropological perspective of some of the problems that are often overlooked and that we consider significant in the analysis of child labour. We have divided the discussion into two parts: selected ecological variables and socio-economic variables. The cultural context, as our preceding discussion has shown, is also important. A detailed discussion of cultural variables is not possible here, although it should be stressed that the social organisation of the family must be examined in the light of the system of

ideas and beliefs that guide individual behaviour. The kinds of ideas and beliefs that are relevant to a study of child labour are, for example, those that surround pregnancy, infancy and childbirth, and those concerning the development of children's intellectual, social and moral capacities.

1. The Ecological Setting

If we are studying child employment cross-culturally, environmental factors must be considered in terms of the ways in which they impinge upon children. These factors, so obvious that their significance is often overlooked, include climate, the availability of resources, and hazards which specifically affect children. Levine has noted, for example, how certain patterns of child rearing, such as the physical restrictions placed on African infants who rarely leave their mothers' backs, are cultural adaptations to the need to protect children from specific environmental dangers, such as the danger from fire or predatory animals.[10] Societies of scarcity and societies of abundance clearly have different effects on children's growth and development. Levels of nutrition, type of diet, and the prevalence of disease are important.

In Kano, as in many other tropical environments, a high level of infant mortality is found in conjunction with a high birth rate. This affects children's work roles for it means that children are likely to assume responsibility for themselves and each other, as women turn their attention to a rapid succession of births. Many writers have noted how, in Africa, weaning, though late, is often abrupt and associated with a sudden sharp decrease in mother-child interaction. At this time, older siblings are entrusted with many child-care responsibilities, and it is common in Kano to see children of 4, 5 and 6 years carrying younger children around on their backs, even when the younger children are able to walk.

From our perspective there is, of course, no such thing as a "natural" environment; we are referring to human ecology, which includes not only natural resources but also the human intervention that determines their availability. In this phase of research we need to ask what the physical environment of the child provides and what it demands from children and their caretakers.

Since most modern societies are characterised by heterogeneous resources and unequal access to them, we must also inquire how their distribution affects particular classes of children. All of the children in a hunting and gathering society are likely to be exposed to relatively similar conditions, given the ecological and technological niche in which they are situated. Children in a complex stratified society, however, are exposed to their environment in many different ways depending upon the nature of the environment itself and, more

importantly, upon the way in which the human population deals with it.

2. Socio-economic Factors

(a) The concept of "modes of production"

In Chapter 1, Rodgers and Standing suggest that children's roles vary systematically according to modes of production. This perspective is useful for comparisons between whole societies, for the analysis of transitions from one type of economic system to another, and for the analysis of intra-societal variation, including comparisons of families, classes or other economically distinct sectors. Within a given society, children's roles will vary according to the way in which their parents' productive activities are organised as well as according to factors such as age, sex and birth order that were discussed earlier. The concept of the mode of production highlights the fact that it is not just the nature of the work done or the setting in which it occurs that is important, but also the social organisation of work and the factors that determine this organisation, be they ecological, economic, political or cultural. Children who work alongside their parents in peasant agricultural production are engaged in a very different sort of activity from children who are employed as migrant farm labourers, even though both are engaged in rural agriculture and even though their actual tasks may be similar. As this example also illustrates, the concept of mode of production is more useful than the commonly used distinction between rural and urban societies since it cross-cuts superficial geographic and even temporal distinctions. For example, the activities of migrant fruit pickers' children in the United States today, who work alongside their parents, are more like those of children in the early British factory system than like the agricultural labour of children of African subsistence farmers. Neither a description of the type of work nor of its geographical setting reveals this similarity since neither description deals with the social relations of production.

The concept of mode of production can be used in conjunction with both aggregate data and case study data, to compare whole societies or segments thereof, contemporaneously or historically. Tilly and Scott (1978), for example, focus on changes in modes of production in their comparison of the work of women and children in France and the United Kingdom over the past two centuries, using aggregate data from census records.

In addition to this type of historical analysis, the concept of mode of production can also be used in conjunction with descriptive case study data to analyse contemporary intra-societal variation, as we have done in Kano, where children of

wage labourers have been observed to have very different roles than children of merchants. In the two neighbourhoods of Kano City that we studied, the occupations of men, women and children varied, the occupations of the women and children following those of the men despite a common religious ideology which stipulated an identical dependent status for all married Muslim women. In the ward where men were wage labourers, women were less active economically and children, including girls, were more often enrolled in Western as well as Islamic school. In the ward where most of the men were merchants, the women were active traders and young girls were usually engaged in street-trading. In our sample, only one girl in this ward attended primary school, and her father was a policeman.

These differences were not a function of variation in men's income, but rather of different attitudes toward work and toward the relationship between work and sex roles (Schildkrout, 1979). Islam stipulates that married women should not work outside their homes, yet in the ward where men were traders the women actively traded from within the confines of their homes. Husbands often extended credit to their wives and in other ways assisted them in their enterprises. All family members were engaged in related productive activities and, even though the income was not pooled in a common fund, it contributed towards the marriage expenses of the children, an investment in which all family members shared an interest and obligation. In the ward where the men were salaried workers, the direct contribution of the women and children to total family income was less significant. Women were not expected to provide as much of their children's marriage expenses and daughters were not expected to raise their own dowries through street-trading. Formal education occupied much more of children's time.

Although it was not expected that women in either ward would have salaried jobs after marriage, the nature of marriage prestations has changed with increasing school attendance. Prospective husbands now contribute a large part of the brides' dowry through their courting gifts. Thus, among salaried workers, the burden of maintaining women in purdah is increasingly falling on men. Since wages have been low, this has put young educated men at a disadvantage. The age of marriage among salaried men is, therefore, often high in comparison with the age of marriage among the sons of successful merchants. It is not uncommon to find wealthy businessmen, or their sons, marrying young schoolgirls, while young men who are training for salaried jobs, including those that require Western education, often have to delay their marriage because of their inability to compete in a high-priced market. A common lament of male university students in northern Nigeria is their difficulty in attracting women away from wealthy, although less

educated, businessmen!

(b) Labour force structure

As Rodgers and Standing have also pointed out, a separate but crucial set of factors determining children's roles concerns the structure of the labour force. Variations in the labour force structure can be important factors in the transition from one mode of production to another. Thus, though the detailed historical data are lacking, it could be argued that the labour of children in northern Nigeria has increased since the beginning of the century, when farm and domestic slavery was abolished. The practice of purdah seems to have increased with the use of slaves as a source of domestic labour.[11] With the abolition of slavery, purdah could continue only with the use of child labour. More recently, increased schooling opportunities, and the consequent removal of children from the domestic workforce, have had a direct effect on the nature of women's economic roles. Many women cease producing for the market economy once their source of child labour is removed.

Perhaps the most crucial, even if obvious, distinction to be made regarding children's work is whether the work takes place in a family production unit or whether children's work is part of the formal wage labour sector. In a sense, children's work which is part of the wage labour sector is analytically indistinguishable from the work of adults; like the work of women, it is distinct primarily in terms of the relatively low wages paid. In terms of an analysis of the labour force, the fact that some workers are children is quite irrelevant unless it can be established that their productivity, relative to wages, is lower than that of other workers. This does not mean that children's participation in wage labour is not of interest from the point of view of child welfare; it simply means that the fact that workers are children is not necessarily significant if we are focusing our analysis on the economic system itself.

When children are working in a familial context, on the other hand, the fact that they are children is highly significant since they are workers only because they are children involved in a particular dependency relationship with adults. Their status as child workers is removed as they grow out of the particular dependency relationships of the family. A child worker, working for wages in a wage economy, is a worker who happens to be a child. A child who works in a familial context is a child who happens to work. The particular dependency relationships discussed earlier refer only to the latter. This is probably the reason why most discussions of exploitation refer specifically to children working in the wage sector, and not to the work of children per se.

In analysing the structure of the labour force, one of the factors which directly affects children and which has often been

overlooked is migration. Migration often transforms child labour in a familial context to wage labour, as in the case of the migrant fruit pickers in the United States (Taylor, 1973). Migration may also increase the burden of work on children as it disturbs the division of labour in the family. In the Upper Volta, for example, women and children in agricultural areas have had to assume steadily increasing labour burdens as men have migrated to engage in wage labour. Migration is related to the profile of the labour force in terms of age, sex, education and other factors, including ethnicity and race. It directly affects one portion of the labour force more than others, usually by drawing them into the formal wage sector. However, its indirect effects on the remaining population, including children, must be carefully examined.

(c) Technology

Children's roles are to some extent dependent upon the demands of technology itself; by specifying the nature of the technological process involved in production, we may be able to predict the most likely roles of children. In Europe in the nineteenth century there were many jobs for which children were thought to be well suited because of their small hands and small bodies. Chimney sweeps, for example, were almost invariably children. In Kano, as described above, the freedom inherent in children's social status means that they are particularly suited for distributing food and small commodities. While these may be rationalisations for the low cost and availability of child labour, it is nevertheless the case that in particular societies certain jobs can be given to children while others cannot. This is not to say that societies will not surpass what may seem to us to be "natural" limits to the suitability of tasks for children.

Technological innovations change the nature of productive processes and in turn affect the market for child labour. The type of analysis Boserup used on the effects of technological change on women's roles in agriculture[12] can also be applied to children. Many children's jobs have been eliminated as a result of technological advances in agriculture and industry, but in the intermediate stages of industrialisation the employment of children seems to increase. This was typical of Europe in the early industrial period and seems to be the pattern in the labour-intensive industries of many low-income countries today. As Smelser has shown in his analysis of the history of the British textile industry (Smelser, 1959), technological innovations led to increasing specialisation of production processes. For a time, as production was moved from the home to the factory, old social patterns persisted and families were employed as units. However, as production became increasingly mechanised, segmentation of the labour force intensified

and the familial mode of production disappeared. In Europe this coincided with the development of educational systems which increased the importance of schools as socialising agents. This pattern is being repeated in low-income countries today.[13]

(d) Income levels and the social and economic structure of households

In analysing the way in which socio-economic factors affect individual children, there are a number of important specific variables to consider. These include the educational background of parents and their occupations, sometimes ascriptive status such as caste or ethnicity, and estimates of income. These are indicators of the position of a child's family relative to others in the same society. In developing and using a broad index of socio-economic class, as many studies have done, income and an evaluation of economic assets are of particular importance. However, the estimation of income is particularly difficult in both survey research and intensive observational research. In Kano, while detailed figures on investments and income were obtained from women, it proved very difficult to get such information from men. Since we felt that parental economic status was one of the most important variables for an analysis of children's economic activities, we were obliged to estimate the economic status of male household heads. For the purposes of analysing our data, male economic status is defined as a function of a set of variables on which we have detailed observations and reports. These variables include male occupation, number of dependents, size of household budgets, consumption patterns including the type of house, furnishings and consumer goods, and education. Using this information we are able to develop a proxy variable for economic status, defining this as a function of these known variables, and basing our equation on data from the 25 per cent of men in our sample on whom we have reliable information.[14]

Because of the segregation of the male and female domains, and the importance of children to women's economic activities, data on men and women should not be confused. Much research on child labour has assumed the existence of a conjugal fund and that the household can be used unquestionably as the unit of analysis. We find this unit in European and American census reports of the past two centuries; we also find it in demographic studies in low-income countries. Many studies of the relationship between child labour and fertility are based on the notion of the household as a unit of pooled resources and joint decisions. However, the projection of the model of the nuclear family household on to disparate sets of data has led to conclusions which are often erroneous, based as they are on assumptions of universality which, as African data suggest, are

false.[15]

Our own research in Kano illustrates a tendency for women to earn and maintain separate incomes, a practice which is also found in many agrarian, pastoral, mercantile and wage economies in Africa. This is probably more common in polygamous societies than in monogamous ones, although even in the latter the relationship between male and female earnings should be studied empirically. If we start with the notion that all family members are potentially productive individuals, and that their roles may complement one another, we need not assume the economic dependence of one age or sex group on another, and can proceed to an examination of the distribution of economic rights and duties within a household. For example, if we compare the organisation of the Yoruba and Hausa household, two cases from Nigeria, we find great differences in the division of economic responsibility between the spouses. While Hausa husbands are responsible for providing housing, food and clothing for their wives and children, Yoruba wives are given trading capital and are thereafter expected to provide much of the daily subsistence for themselves and their children.[16] As Sanjek suggests[17] a household is a "staging area for social life"; it may not be a unit of production, or consumption, and it certainly need not be both. The activities of the household must be analysed in the context of data on the mode of production in the particular society. Is the household in fact a food producing, or procuring, or processing unit? Is it a unit of consumption? How are economic rights and duties distributed among household members? The functions of social units such as families or households are matters for empirical investigation. In many census surveys, the physical structure of the house has often been assumed to be congruent with a social unit; this very often is not the case.

An empirical investigation of household composition and domestic roles helps us understand the extent to which various categories of person have rights to children's services. In Kano, virtually any adult can send any child on an errand, whether or not they are related, live in the same house, or even know each other. However, the child can rightfully expect to receive compensation which will vary according to his or her relationship to the adult. Parents or other primary caretakers do not give children special rewards when they run errands, since such work is part of the accepted obligations of child to parent. However, more distant relatives or non-relatives, even if living in the same house, will reward children for running errands, usually with food or money. Strangers will offer a predetermined payment, which is actually a piece-rate wage.

We were able to investigate children's extra- and intra-household relationships on the basis of daily diaries of the activities of 112 children over ten days each. We used a

sample of children stratified according to age, sex, school attendance patterns and parental occupations. Among other things, we found that while many children live away from their mothers, mainly because of a high divorce rate, they nevertheless perform many services for them. Some children also regularly work for their grandmothers while living with their parents; adults who have claims to children's services frequently live in different households. For example, a Hausa child has a very significant relationship with the woman who cared for him or her during the week of weaning. This woman is often a grandmother or parent's sibling. Many children visit this woman regularly and perform household service for her throughout their childhood, sometimes extending to financial support in adulthood. Apart from these special relationships, we found that many children regularly perform errands and claim food in several houses, sometimes even varying their sleeping arrangements. Therefore, an assumption that children's unpaid domestic labour is confined to the household unit would certainly distort our data analysis.

V. Conclusion: Changing Roles of Women and Children: The Impact of Western Education

As we have indicated at various points throughout this chapter, the major catalyst of change in the roles of children in northern Nigeria is the increasing numbers of children in primary school. This also has profound implications for the roles of women and the structure of the family which, in this society, is so dependent upon child labour for socio-cultural, even more than economic, reasons.

In this part of Nigeria, Western education on a large scale is recent.[18] During the colonial period, the British left the Islamic education system intact and prohibited Christian mission schools from entering the area. The result is that the north of Nigeria lags far behind other parts of the country in the extent to which Western education has been developed. For the past few years, the Federal and State Governments have been involved in a massive campaign to increase enrolment in primary school. There has been a certain amount of well publicised resistance, mostly from conservative religious elements who see Western education as a threat to the traditional Islamic education system. However, there is some indication that this resistance is exaggerated, for in the late 1970s enrolments in primary school far surpassed expectations and facilities. We suspect that such opposition as exists is due to recognition of the threat that Western education poses to the division of labour by age and sex and to the institution of purdah. In fact, Kano families who do not enrol their boys in school are rare; but as this study demonstrated, there is considerably more variation with girls.

As we have seen, in some parts of Kano school attendance is increasingly replacing street-trading for girls as an occupation and as a means of obtaining dowry. It is interesting to note that opponents of Western education for women claim that the virtue of girls is at risk in school, since in order to obtain gifts girls must attract suitors. The opponents of street-trading, however, use exactly the same argument, saying that street activity compromises girls' morality. For both groups, the expectation that women will marry at puberty and live in purdah remains; what varies, as children's roles have changed, is simply the means of obtaining the economic prerequisites for marriage. Street-trading and school attendance, for girls, are seen as different means to the same end. Until there is a change in the values associated with marriage and female roles in general, this will continue to be the case. Street-trading before marriage will continue for some, and women's education will be aborted by marriage for others.

In the long term, however, Western education inevitably poses a threat to traditional values and social roles. In the present and in the immediate future, the removal of children from full-time participation in the domestic economy makes it much more difficult for women to function in marriages of seclusion. In the long run, Western education potentially equips women to assume new occupational roles which are incompatible with such marriages. Inevitably, Western education will change the roles of children and threatens to change the nature of marriage in Hausa society. It is important to realise that it is not possible to tamper with the roles of children in this way without at the same time altering the balance of power between men and women, both of whom depend upon children, but in very different ways.

To conclude, if there is one lesson that anthropology has to offer in the study of child labour, it is the impact of cultural factors on social and economic activities. In studying the impact of one set of forces on another, it is vital that we appreciate that social, economic and cultural forces are integrated into behavioural systems. Change in any one part of the system affects the whole. We cannot intervene in children's lives without taking into account many factors which might at first glance seem to have little to do with them.

Annex

Data for the Analysis of the Activities of Children

The data for the Kano study came partly from semi-structured interviews with children about their day's activities. Narrative interviews are mapped on to a data coding scheme in terms of the child's socio-economic profile and the nature of his or her activities - their function and duration, the authority relationships on which they depend, the gains and their distribution. Not only "economic" activities but also play, and time spent in eating, washing and other aspects of everyday life, are included. An illustration of the original data is the following account of a day's activities of Hadiza, an 11-year-old girl. Her father is a trader, selling shoes, and her mother cooks and sells bean cakes and guinea-corn tuwo, a staple food. The father is approximately in the middle-income range of the families studied. Their mud-brick house has piped water but no electricity. The father owns a motorcycle. Hadiza attends Qur'anic school and Islamiyya night school - a more formal type of school than the Qur'anic school; she does not attend primary school. We do not know her father's exact income, but the mother's estimated monthly income is ₦25.00, slightly above average for the ward. In this account note that Hadiza rises early to begin doing talla (street-trading) of bean cakes, then attends school and later continues with talla of tuwo. At one point during the day when she has a small amount of free time, she begins to work for herself in an activity that is seen as both work and play - preparing snacks to sell to children.

"After I woke up in the morning, I made an ablution and prayed the morning prayer and then ate my breakfast. I then went outside the house to sell bean cakes which my mother makes every morning.

Later I was called to come and take the bean cakes around the town to sell. I sold only 48k worth [kobo; 100k = 1₦]. I did not know how much cake had been set in a flat tray for me to sell. My mother spoke to me about not making sufficient effort to sell as much as I usually do.

When I came back home, D.G.[19] came and asked for 50k worth of bean cake and another girl was also given 20k of cake. I then went out for the second round and made 70k. I brought back the money and the rest of the bean cake.

Then I set out for Qur'anic school which was under Malam S. The school starts every morning at eight and ends at nine in the morning. When I came back home I washed my feet, hands and face and prepared a talla of tuwo. My mother then sent me to another ward to collect bowls [buyers supply their empty bowls when they purchase food] and the money from our usual customers who buy our tuwo. When I came back home I was told to go to yet another ward, Arewa, where my junior

sister would take back the bowls to the respective owners. There at Arewa I was to collect some more bowls. On the way back I met Hajiya Y. [a friend] who asked me where I was going. I answered that I had been sent to M.'s house to take tuwo. When I got home I was told that my junior sister would take the bowls to the respective buyers and then I was sent to M.'s house. At M.'s house I got seven bowls; three for 10 k each and the rest of the four bowls at 8k each. My mother put the tuwo in each bowl - different quantities as indicated by the amount of money given for each bowl. I later took them to the people who sent for the food.

After I came back, a person by the name of G. sent me to get him tuwo for 15k and I did. I then stayed outside the house doing talla and shouting aloud saying, 'Tuwo ... miya da mai da nama' [food, soup and oil and meat]. Later on I was told that tuwo was finished and so I was sent to another house to get pounded corn, and one of the residents, a woman named T., asked me to go and get her one of the big pots my mother used to prepare tuwo. I then came back home to take the pot to T., but unfortunately I found that I could not carry it since it was too heavy and bulky for me. The pot was then brought to the entrance way. I went to tell T. that I could not carry it to her. My junior brother dirtied his hands and the rest of his body by rubbing against the blackened pot.

My mother was pounding something, and so I was sent to another place to pound locust-bean seeds and when I came back, another girl was sent to pound ginger and black pepper and later came back with powdered spices. I then went out to L.'s house to get some guineacorn, three bowls, which I brought home. I was later asked to take three bowls to T. My mother gave me 15k to take to T. for the dusa [the chaff left after guinea corn has been pounded]. But T. told me that my mother owed her 5k from the previous day for dusa.

When I came home I set out for a talla of salt, maggi cubes and laundry detergent. When I came back from this I prepared some food which was made from a mixture of flour which I brought for 10k, 1k salt, 5k of palm oil and some firewood for 10k. I took it out to sell to children when I suddenly was called and told that I was wanted by H. at home. There I was informed that Zara [the anthropologist] had come and wanted to see me.

I got some escorts, whom I warned that they might be sent back. My junior sister said that she was selling koko. Together with another girl and some uninvited escorts we set out to see Zara. I left the food I had prepared to sell to the children until after my encounter with Zara.

Later, when I got home I was asked where I had been and I answered that I had been talking to Zara. I was then sent with a calabash of corn for grinding. Before I left, my younger sister came in with another calabash of corn and this

also was given to me, making three calabashes of corn, which I took for grinding. I was sent by my mother. The person who ran the grinding machine advised me not to carry too large a load. First I took two calabashes home and later I came back and took the other one. The man who ran the grinding machine gave 1k each to me and my junior brothers.

I was then asked to take a bath, which I did. After that I was sent to the hospital. My mother's co-wife told me to hurry up for the trip to the hospital. But before I got ready and prepared for the trip, my stepmother with others had gone away. Then my senior sister gave me the taxi fare but unfortunately I could not get a taxi to the hospital, so I took a bus. On my way to the bus-stop I met one of my friends and I asked her where she was going. My friend answered that she was going to Bakin Ruwa ward. I asked her if I could join her and we entered the bus together. My friend got off at Bakin Ruwa while I got off at the city hospital. When I came to the outer edge of Kasuwa ward I bought some cheese for 5k at the Kurmi market.

Then I met T. and I asked where she was going. T. answered that she was heading home. T. bought fried fish at the outskirts of the market for 10k. She even gave me a portion of it. Then she went home. Going to the hospital I loitered and played on the way.

When I came back home, I met the women of the house preparing for a meal. I found one of the women eating tuwo which contained butter. She added that she had not known that it contained it. She was then given another bowl of food which did not contain butter, but she said she would not take it. I was then asked to eat together with the women I met at the house. After we had finished eating we washed our hands.

At night I was sent to take some spices for pounding and there we wasted a lot of time. Then the other children and I proceeded to a place where fruits and vegetables are sold along the street. We bought vegetables for soup for 50k as my mother had told us to do so."

Notes

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author is extremely grateful to Carol Gelber for valuable assistance in analysing the data on which this paper is based.

[1] The growing literature in this field includes M. Anderson: Family structure in nineteenth century Lancashire (Cambridge, Cambridge University Press, 1971); Aries (1962); de Mause (1974); B. Hanawalt: "Childrearing among the lower classes of late medieval England", in Journal of Interdisciplinary History, 1977, No. 1, pp. 1-22; Kitteringham (1975); P. Laslett: The world we have lost: England before the industrial age, (New York, Charles Scribner's Sons, 1965); P. Laslett and R. Wall (eds.): Household and family in past time (London, Cambridge University Press, 1972); Schildkrout (1978b); Smelser, (1959); E.P. Thompson: The making of the English working class (London, Victor Gollancz, 1963); and Tilly and Scott (1978).

[2] M. Last: The Sokoto caliphate (London, Longmans, Green, 1967); J. Paden: Religion and political culture in Kano (Berkeley, University of California Press, 1973); M.G. Smith: The economy of the Hausa communities of Zaria Colonial Research Studies No. 16 (London, Her Majesty's Stationery Office, 1955); and idem: Government in Zazzau (London, Oxford University Press, 1960).

[3] E.N. Goody: "Kinship fostering in Gonja", in P. Mayer (ed.): Socialisation: The approach from social anthropology, ASA monograph 8 (London, Tavistock, 1969); "Forms of proparenthood: The sharing and substitution of parental roles", in J. Goody (ed.): Kinship (London, Penguin Modern Sociology Readings, 1971); and idem: Contexts of kinship: An essay in the family sociology of the Gonja of northern Ghana, Cambridge studies in social anthropology No. 7 (Cambridge, Cambridge University Press, 1973); also Oppong (1965).

[4] R.S. Rattray: Ashanti law and constitution (London, Oxford University Press, 1929).

[5] R. Santerre: Pedagogie musulmane d'Afrique noir (Montreal, Les Presses de l'Université de Montreal, 1973); and I.M. Lewis (ed.): Islam in tropical Africa (London, Oxford University Press, 1966).

[6] In the 1950s the Government became particularly concerned with problems of juvenile delinquency and the use of young boys in political campaigning. This led to the promulgation of a set of rules by the Native Authority, "The control

of juveniles accompanying Koranic malams", NA Law No. 4 of 1954. These rules required that the malam obtain permits to take children with him and imposed penalties if he abandoned them. Today, however, the permits are seldom obtained.

[7] A similar situation is familiar from the Euro-American experience, that is, the domestic work of men is conventionally defined as inappropriate to their sexual status.

[8] S.N. Eisenstadt: From generation to generation; Age groups and social structure (Glencoe, Ill., The Free Press, 1956); and Paulme (1971).

[9] P. Spencer: The Samburu: A study of gerontocracy in a nomadic tribe (Berkeley, University of California Press, 1965).

[10] R.A. Levine: "Child rearing as cultural adaptation", in P. Leiderman, S. Tulkin, A.Rosenfeld (eds.): Culture and infancy: Variations in the human experience (New York, Academic Press, 1977).

[11] P. Hill: Rural Hausa: A village and a setting (Cambridge, Cambridge University Press, 1972); and M. Smith: Baba of Karo: A woman of the Muslim Hausa (London, Faber and Faber, 1954).

[12] E. Boserup: Woman's role in economic development (New York, St. Martin's Press, 1970).

[13] For further discussion of the extent to which European history can throw light upon the current situation, see the chapters by Morice and Hull in this volume.

[14] I am indebted to Guy Standing for clarifying this procedure for me.

[15] Laslett and Wall, 1972, op. cit.; E. A. Hammell and P. Laslett: "Comparing household structure over time and between cultures", in Comparative Studies in Society and History, Vol. 16, 1974, pp. 73-109; and R. Sanjek: "The organisation of households in Adabraka, Ghana: Toward a wider comparative perspective", in Comparative Studies in Society and History (forthcoming).

[16] N. Sudarkasa: Where women work: A study of Yoruba women in the marketplace and in the home, Anthropological papers, Museum of Anthropology, No. 53 (Ann Arbor, University of Michigan, 1973).

[17] Sanjek, op. cit. See also E. Schildkrout: "Economics and kinship in multi-ethnic dwellings", in J. Goody (ed.): The changing social structure of Ghana: Essays in the comparative sociology of a new State and an old tradition (London, International African Institute, 1975); and E. Schildkrout: People of the Zongo: The transformation of ethnic identities in Ghana (London, Cambridge University Press, 1978), Chapter 5.

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[19] In this account people's names are referred to by initials.

Chapter 4

The Child in Africa: Socialisation, Education and Work

by M. Bekombo*

I. Introduction

In European society childhood was not recognised as a distinct life-phase until the Industrial Revolution. Following a period of intense exploitation of child labour, the need for a more highly skilled workforce with the consequent expansion of training and obligatory school attendance, amongst other factors, led to the gradual withdrawal of children from the productive sector. This heralded a radical change in the concept of, and attitudes towards, childhood. Rather than a source of economic gain, the child progressively became an economic charge and an object of parental psychological investment.

The immediate consequence of this change in the child's situation included a general reduction in the birth rate; adoption, formerly widespread, became rare; the contraction of the family unit accelerated under pressure from increasingly explicit legislation. At the same time, children, who would henceforth occupy only the margins of the productive sector, under the exclusive control of their parents, acquired a value of their own and became the object of scientific research and legislation.

This type of economic thesis is often put forward as a practicable development strategy for the Third World. But although objectively it may be applicable, the theory refers only to the specific problem of national economic development. The broader view of the historian P. Ariès seems more helpful. Ariès thinks that the emergence of the idea of childhood is closely related to the spread of literacy and schooling. Thus, attitudes towards children in Europe evolved not only in response to economic changes, but also as a consequence of a shift from an oral to a written tradition. In supporting his thesis, Ariès places less weight on economic changes than on modes of cultural transmission from one generation to another. Because, according to these hypotheses, development in attitudes is more a product of the culture as a whole than of one of its constituent sectors, any investigation of children's productive activities must be carried out within a global appreciation of the culture of the society concerned. An ethnological

approach is therefore not only useful but necessary (Ariès, 1960, 1978).

This brief reminder of the social history of Europe leads us to ask whether, in spite of their cultural specificity, the developing countries of Africa will follow the same pattern. To answer this question and to initiate projects aimed at alleviating the problem of child labour, we need first to understand the African cultural framework. The first part of this chapter therefore briefly describes the traditional African socio-economic environment, placing particular emphasis on the way in which culture is transmitted via an "education" system integrated into the whole range of community activities. Thus, in distinguishing between the notions of "participation" and "work" we try to show that the productive activity of a child living in a rural and traditional environment is a means of social integration and cannot be likened to paid work. Then, turning to the modern urban environment, we show that (unlike the Western European historical pattern) when children's work is no longer integrated into an educational system it becomes a "deviant" or "delinquent" activity in the context of the current economic and political situation in Africa.

II. The Child in Traditional African Societies

1. The Child and the Family

Many African societies, whether or not they are superimposed on a State, are organised according to clans or lineages. It is difficult to define these social units. A lineage is considered to be a group whose members, sharing a common history, also recognise each other as being related through a common ancestor. Individuals therefore consider themselves a part of a lineage entailing the exercise of a certain number of rights and obligations within the community. The most obvious right accorded to each man is the right to attempt to achieve the highest social standing by means of a wide variety of tests. The most restrictive obligation is that which requires all members of every lineage to marry an individual from outside the lineage. The prohibition of marriage within the lineage has, like all rules, some exceptions which sometimes almost become requirements in themselves; thus, in certain societies, marriage to the offspring of brothers or cousins is favoured, although rare. Thus the lineage views itself as a whole that is composed of individuals, each of whom has his or her place in relation to the common ancestor and according to his or her chronological order of appearance. We shall see how and why under this structure the individual is viewed as a member in his or her own right before being viewed as the child of a couple.

In fact, matrimonial alliances emphasise the lineage groups rather than individuals; this holds true whether the society is "patrilineal", with virilocal residence, or "matrilineal", where the wife receives the husband or "legitimate lover". The links forged between two lineages clearly signify that these are two groups which have contracted an alliance. Individuals incorrectly called "man and wife" do not become partners until later, and then only in order to allow the two parties to achieve their respective objectives. This method of alliances leads us to stress the difference between the function of the begetter and the role of the parent. In general, African cultures appear to place greater importance on the latter, which thus comes within the social sphere, unlike the position in Western societies which abide by biological descent. While the reproductive function can only be carried out by two individuals, many people can play the role of parents to the same child and at the same time. The result is that the child may often be cared for by the family and by the village community; in Europe, on the other hand, care is provided by the parental couple, who may receive assistance from society through the State.

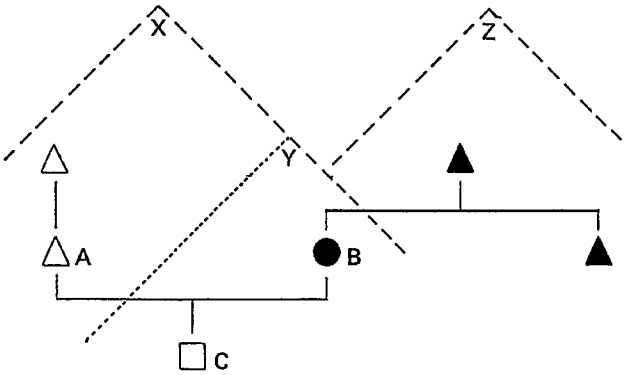
In patrilineal societies (based on polygamy) the pay-offs from alliances are admission to the exercise of paternity rights over future children (a "wife-taker" for the lineage) and the acquisition of the right to extend the kin network ("wife-giver" for the lineage) which, because of polygamy, results in the founding of a new line of descent amongst relations by marriage. The acquisition of paternal rights through lineage X (see figure 1) explains, in legal terms, the connection of the children C to the lineage to which they now belong. At the same time, the presence of the wife B (wife of A) leads to segmentation of the lineage X through establishment of the zone Y (common to both groups X and Z) as the centre of relations and territory.

In matrilineal societies there are no "givers" or "takers" of wives: the two contracting groups aim to obtain the children born of stable or temporary unions, which in practice means that each appropriates the children born to their daughters (figure 1).

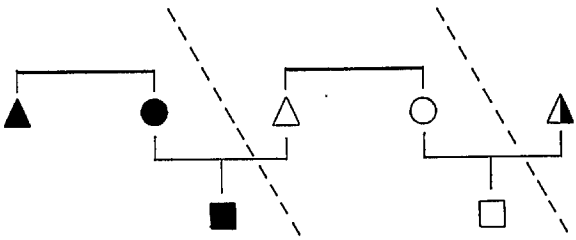
In many African societies the family - which we shall call the domestic unit in order to avoid confusion - is defined by the simultaneous presence of at least four successive generations of relations who are sometimes joined by "associate" individuals holding various statuses. Within this unit there is a double differentiation on the basis of sex and on the basis of age. A third distinction which should be introduced is that of the daughters of the lineage and wives introduced by marriage (in the case of patrilineal and virilocal societies). The clearest distinction is on the basis of age, and in this regard the domestic unit unites adults and children, both being considered as members of the lineage to which they belong, and on

Figure 1: Position of the child in patrilineal and matrilineal systems

Patrilineal system



Matrilineal system



△ = male

○ = female

□ = female or male

the same terms because they have identical rights. In addition, the village territory is open equally to everyone, be he child or adult.

The technical implications of the theory of alliance and kinship arising from these cultural arrangements need not be discussed here. However, it should be stressed that, firstly, a child is not the consequence of a marriage, but rather a condition of an alliance. Secondly, and bearing in mind the family structure itself, an individual is never the child of its "mother" and of its "father" at the the same time. For the child, the family is always and exclusively either the paternal lineage or the maternal lineage. It is within this group that the child grows up, passing from one age and social status to another on the basis of the activities he or she performs.

The European view of the married couple as an autonomous unit into which the child is integrated has been adopted to a certain degree in present-day social arrangements, but they have not affected traditional structures to any great extent and the latter survive even in urban areas.

These are all factors of considerable importance for understanding the roles and activities of children. They define the social and familial framework within which the child grows up, and also help us understand certain attitudes of parents towards their children. They show, for instance, that the relationship between the wish to have more or fewer children and parental ambitions with regard to economic power is inadequate as an explanation for changing attitudes towards children. In the African context, these changes result more from modifications in the socio-familial structure than in the type of economy or the rate of literacy or from wider availability of schooling. The position and social status of the child cannot be looked upon as merely marginal phenomena of the total culture, for the latter underpins them and gives them meaning.

2. Participation as a Socialisation Strategy and as a Means of Transmitting Knowledge

Many researchers have observed the advanced psychomotor development of African children. Because children learn to walk relatively early (7 to 9 months), breast milk is supplemented by certain adult foods. However, infants remain very dependent on the maternal figure, a situation which ends only at the time of another pregnancy (typically at the age of around 2 years); it is this separation, starting with complete weaning, that marks the child's entrance into village society. Subsequently the child joins his peers and with them forms a group which in some societies will later be called the "age class", in connection with initiation.

From the age of about 3 years, two principal phases can be identified: up to 6 or 7 years, during which a child's

activities are centred on the life of the household, and from 7 to 16 years, during which activities range over the whole area of the village. In the household phase the child helps not only in strictly domestic activities - care of younger children, food preparation, maintenance of the living area, obtaining supplies of water and wood, transport of the harvest, and so on - but also in more specialised tasks oriented towards household consumption, such as hunting, fishing, hut construction, and sale of produce in the market. In other words, the child participates in all the subsistence activities which make up the economic life of the child's group. In these tasks the child is helped by adults, whose behaviour he or she imitates. Even a superficial survey carried out in rural areas that have schools will clearly show that children of pre-school and early school age spend more time on these tasks than, for example, in learning to read. There is clearly a problem here: school attendance requires more of the child's time, schooling appears to be a fundamental condition of economic and social development and, to complete the circle, school offers a route to the modern world which today's children (but not their parents) must enter.

Where children constitute a socially recognised subgroup, it must not be assumed that these are simply sporadic formations created for a game or some other temporary objective. Such pre-initiation age groups have specific functions, particularly during religious or political rituals. Their members are not consigned to special corners of the social environment as would be the case in Europe. Thomas, to cite only one author, notes precisely that; "in fact, the child shares the same social environment as the adult, participates in the same tasks ... upholds the same clan interests either of the village or of the family, has the same objectives, experiences the same emotions, believes in the same values. Children's games, for example, are a preparation for more serious work and are echoed in the rhythmic, song-accompanied and often competitive work of the adult which preserves something akin to play." The author stresses in particular that "very soon, the young African must search for his own food; very soon, he will be initiated into sexuality; very soon, he will act freely within the framework of the rules ... and consider himself a responsible person" (Thomas, 1965, pp. 42-43). Chantal Lombard confirms these observations with regard to an Ivory Coast society (the Baule); she notes that "from the moment when an individual can do so, he participates in the activities of the family community; this participation begins around the age of 6 and ends at death... . Each person's contribution is an essential precept to which the group gradually accustoms the child... . It is an element in the family production chain... . The child opens out and feels appreciated" (Lombard, 1978, pp. 195-203). It should be clearly stated that the early introduction of children into the

productive sector is not the result of a deliberate decision on the part of adults; it is the outcome of a socialisation strategy adapted to a way of life and to the functioning of other social institutions.

The insertion of the socialisation process into the heart of community life also means that the child's passage from play to productive activities is accomplished smoothly. For example, children are often forced to create their own toys and fashion objects for a game by manipulating the same material as an adult may be using to make a utensil; a corn cob, bamboo, or wood are carved by the latter to produce a gourd for use as a water container, and by the former to produce a doll or a miniature replica of an object found in the immediate environment. In a general way and using the same tools the child simply imitates the activities going on around him, and what he produces is immediately recognised by the community as a "product", in the same way as if he were an apprentice. On this subject, Fortes (1938) gives the example of a young girl who, accompanying her mother, played at drawing water using a tiny container. Fortes also notes that this small quantity of water was seriously and usefully collected although there was no economic necessity springing, for example, from scarcity. This association of the child with useful tasks, as part of the normal education process, illustrates the way in which the child actively participates in his or her own social integration process.

In general, attendance at school does not release children from their duties in rural family communities. A reorganisation of time rather than a reduction in the tasks to be accomplished is the usual solution. In these types of community, which still occupy much of the continent, the importance of "knowing how" is more important than simply "knowing". In fact, the school may do no more than transmit new techniques - for instance, teaching how to construct different kinds of net in order to catch more fish.

This participation of the child in productive activities is linked to the institution of age classes which operates in many African societies. Relations between age classes are an important aspect of the structure of economic activity. Nor are such relations necessarily exploitative, as an example given by Paulme illustrates: "Youths would 'steal' a field in order to till or harvest it without the owner's knowledge; the latter would then be obliged to offer a feast and presents to avoid losing face in front of the whole village" (Paulme, 1971, p. 19). This was part of a cyclical process: the adults who benefited from the services of the young later handed over to them so that they in turn could take advantage of the assistance of a new generation.

At about 7 years of age, sexual differentiation is confirmed. In general, boys move towards institutional initiation

and girls towards an apprenticeship for "married" life. Very soon, the latter take on the community responsibilities reserved for women. Girls of 7 to 10 years of age often become "mothers" to their younger brothers and sisters. In patrilineal societies, boys work under the supervision of their fathers and in the sphere of their patrilineage whereas girls learn to become women from their mothers-in-law and not their mothers. Thus the destination of the child's product would be, in one case, his own lineage of origin (which is also his living environment) and, in the other, the lineage by marriage. The social function of these activities encompasses a much wider area than personal or strictly family interests; in one case, ensuring the cohesion and continuity of the lineage group and, in the other, giving substance to the links between communities.

3. The Definition and Measurement of the Work of Children

The range of activities which children undertake, especially from age 7 onwards, leads us naturally to consider which of these activities should be regarded as "work". In the present analysis we provisionally use the term work in only two types of relationships, I and II. Relationship I occurs when child C carries out an activity for the benefit of adult A' who hands over in compensation, directly and personally, an object of value (money, luxury item, food); and the relationship linking C and A' is based only on this exchange. Relationship II occurs when parent P, intervening in relationship C/A', becomes the partner of A', to whom the labour of child C is offered in exchange for some sort of remuneration for the parent (money, service, etc.). These two types of relationship should be distinguished from a third. Relationship III, which indicates participation rather than "work", and describes the exchange which occurs between the child as an individual and the family or community to which he or she belongs and in which he or she is obliged to participate.

With regard to the problem of work, it is clear that the above distinctions alone are not sufficient. It would be important to know whether the remuneration received by the child (Relationship I) is partially or totally for personal use or if, and in what proportion, it is added to the total adult income either at the demand of the latter or simply in practice: in the second case, the relationship is no different from participation, that is, Relationship III. In the same way, it would be useful to find out whether the gain appropriated by parent P (who in effect rents out the labour of the child) in Relationship II is destined to be invested mainly on the child's behalf (this is possible, for example, in the matrimonial alliance strategy that requires the accumulation of goods which then constitute matrimonial compensation). Thus, further examination of these alternative arrangements shows that the three types of

relationship are interdependent. Moreover, far from invariably implying exploitation, the work of children can be, according to cultural context, an expression of an educational principle according to which, if only in anticipation, each individual makes a sacrifice to the community who then accepts him or her as a member. This focus emphasises individual/group links rather than inter-individual relationships; the latter relate to the family group and are controlled by legal provisions relating to descendants and rights of succession. Under the individual/group arrangement the gains obtained by the father can be seen as a kind of advance contributed by the son for the acquisition of the widows of the father or paternal uncle (levirate). It can thus be seen that the definition of work or employment largely depends on the volume and destination of the product of the child's activities.

The conceptualisation of work then involves a measurement of the productive activities of children. This presents a difficult methodological problem. To resolve it would require an exhaustive inventory of "productive acts" and conversion of their total into measures of effort given. The task is particularly difficult in societies where in practice there is little differentiation between analytically separate aspects of daily life, so that it is not easy to distinguish play activities from participation in the subsistence activities of the family group. In addition, the product obtained can be assigned a true value only in comparison with the total amount of work carried out by adult members of the family. A quantitative evaluation of children's productive activities will not make sense unless there is a parallel qualitative evaluation of the resulting product, which of course requires a prior definition of what constitute a "productive" activity. This in turn presupposes the establishment of a normative system of reference, for what is considered productive is essentially a normative question.

Despite these difficulties we consider such an approach to be promising. The use of such a system would counterbalance concentration on the individual and would allow an estimate of the proportion given and received by each member of the lineage group. The destination of the child's product would also give an indication of the extent to which the child was a victim of exploitation. From the point of view of the researcher, the advantage of the proposed methodology lies in its emphasis on the multiple relations likely to be encountered. This will oblige the researcher to depart from assumptions of "rationality" and from the use of Western methods which cannot be applied to the situations we have described.

III. The Urban African Environment

1. The Economic Structure of African Towns

The traditional world we have described has been undergoing a process of transformation during several centuries, with some sectors being affected more than others. One of these is the urban sector, which accounts for around 20 per cent of the total population, on average, in African countries. This population is attracted, for the most part, by modern jobs, schools, commerce and the cinema, but also by ethnic heterogeneity and a protective anonymity; in brief, a way of life. However, it is uncertain whether it is possible to detect a fundamental economic distinction, based on interdependence, between the town and the country in Africa. There is no real exchange of the goods produced in urban and rural areas; many African towns are collection and redistribution centres for imports and exports, not locations for the production of specific goods and services for exchange with rural-produced consumption goods. At the same time and in contrast with the rural areas, few African towns have their own community identity because, as a result of continuous migration, a large proportion of the population are newcomers. Finally, the divisive strategy pursued in the colonial period has often made African towns seem like a series of commercial, residential, administrative and even agricultural islands.

The kind of employment found in an urban environment is well known. The administrative and public sectors absorb a significant proportion of the active labour force. This is also true of the commercial sector, though this sector can be divided into two parts: first, large enterprises (which range from large stores selling imported products, to exporters of local products); and second, small-scale enterprises that are artisanal in character. Alongside these two divisions are all kinds of petty activities, operating in an informal environment that appears more or less unstructured and difficult to control and where children and adults act in complicity and solidarity with each other.

Family enterprises are neither traditional nor common in most African towns; this is because they are usually set up only in modern trades, with the exception of metal workshops and smithies. Apart from light handicraft enterprises there are carpenters, masons, wood-cutters, wood-sellers and panel beaters. These businesses rarely employ children except in specific, often family-related cases. For instance, an uncle (who may happen to be a carpenter) could be traditionally obliged to train his nephew, in which case he lodges him and takes him into his workshop, only to release him again when the time has come for the nephew's return to his original patrilineage.

In Africa today apprenticeships in urban areas tend to be served in specialised locations either within or close to a school. The latter are the only institutions that have the right to sanction knowledge (including know-how) through awarding diplomas. Assisted by legislation, the modernist ideology of education, inherited from nineteenth-century Europe and accentuated by pressure from the industrialised countries, is the determining factor in this situation. This is not bad in itself but is a narrow path, difficult to enter and pursue to the end and leading either to respectability and recognition or to nothing at all. In the latter case, the least that can be hoped for is a job as a houseboy or girl - work which could be said to be as good as any other but which is very far from the aspirations of the young person concerned (Clignet, 1975).

2. The Effects of Schooling in the Urban Environment

The search for schooling and jobs is the reason most often given to explain child migration to towns. In 1968-69 it was estimated that in the United Republic of Cameroon as many children arrived alone in Douala and Yaoundé as arrived with adults. The same proportions were also observed for Dakar and Abidjan (UNICEF, 1966). It should be stated, however, that unaccompanied children are normally placed with "parents" already living in the town. The first question which should be examined concerns the new relations imposed by the environment which henceforth unites children and adults.

Inasmuch as towns are the centres of new institutions and of what may be called "modernity", they appear to be a factor in the breakdown of traditional family and social structures. More specifically, the urban environment provokes feelings of insecurity in both adults and children that lead to the severing of some of the links between them. This phenomenon has often been described in the African literature; as soon as the adults no longer have values and ideas to pass on, the means by which children's security is safeguarded also disappears. From the moment when adults cease to be involved in projects that the children would eventually take over from them, they cease to be parents and become merely genitors. The children in turn are forced to turn towards school, rather than the family, in order to become social adults.

In our view the above factors are those which affect adults and children in the new society emerging in the urban areas. On the one hand we see moral disintegration and material poverty, on the other hand, and accompanying this shared misery, we find feelings of isolation and a loss of direction. The children must go to school in order to obtain the jobs they want and social failure becomes a threat which weighs on parents and children alike. Schooling is expensive for the State and for individual families and success is not even guaranteed;

schooling can lead to social discrimination and is a factor in deculturalisation. This explains the contradictory attitudes held by many parents who see the necessity of supporting the education of a particular child and yet are unjustifiably indifferent towards other children who have dropped out of school (even though these may receive a certain sympathy).

In fact, drop-out from school is very frequent both in the country and in urban areas. It is difficult to estimate the number of non-attenders in the total population of children under 15 years of age (this group represents about 50 per cent of the total population in most African countries). Although school population statistics are generally available on a regional or national level, those dealing with non-attenders are not. Studies carried out in the United Republic of Cameroon between 1969 and 1976 have shown that "on average, taking public and private schooling together, out of 1,000 first-year pupils, only 505 reach the sixth year and of these 146 obtain the CEP (Elementary Education Certificate); in other words, 495 students leave before the end of the cycle and, of these, 259 leave before the second year. Amongst primary schoolchildren, 85 per cent leave without a diploma and only 2 per cent go on to secondary education. In 1975-76, taking children over 10-11 years of age, 40 per cent of those who attended school at 6 years of age had dropped out or only attended school very irregularly." It is also noted that "repeated years account for about one-third of pupil-years; this is so usual that, instead of allowing six years to complete the primary cycle, an average of 12 years is allowed for one pupil".[1] This prolonged stay at school goes some way towards explaining drop-out for financial reasons.

The high cost of schooling prompts some parents to question its usefulness and they may have doubts on the necessity of registering or keeping their children at school. It is not even a question of measuring the importance of schooling against the sacrifices made to obtain it, but rather that, often, not even the smallest return for this investment is discernible. This is the source of a certain mistrust regarding modern education. In addition, the academic education received at school can be applied in only a limited number of jobs. It is also true that these kinds of job represent an even smaller part of the total activity of one person: any activity which is aimed at acquiring the least of an individual's basic needs requires skills other than the ability to read and write. Similarly, a young educated individual rarely finds a job on the sole basis of his or her ability to read. The question asked, then, is why a child who enters a modern school at the age of 6 cannot, 12 years later, do what his counterpart in an earlier period could do following tribal initiation?[2] How can a society, even if it is in transition, countenance what appears to be a deception? With regard to Chad, Khayar declares: "Today's

public education in Chad presents more problems to society than it resolves... . In the eyes of the population, educated youngsters become deviants and are alienated because they hold values assumed to have been transmitted by an ill adapted education system; arrogance, alcoholism, individualism, indifference, prostitution, lack of respect for tradition, personal ambition, etc., are some of the characteristics attached to Chad youngsters educated in the public system" (Khayar, 1979).

It is clear that failure at school presents the child with a difficult choice: it would seem logical to suggest that such children be encouraged to return to their villages, but this is something they will only do much later after having lost all hope of finding an "honourable" job or accumulating a little capital from doing something else; in addition, they will be inclined to stay in the town whatever the living conditions, and in this way avoid the scrutiny of their elders (Bekombo, 1968b, 1972).

In the urban environment, it is notable that on leaving school, and for the same reasons, the child also leaves the family home. Thus the lack of communication with parents is aggravated by physical separation. Children from the countryside join with native town dwellers and establish groups founded on solidarity or perhaps age. These are the groups of boys and girls who congregate in large numbers in public places such as Trechville in Abidjan or Akwa and New-Bell in Douala. With regard to lodgings, a study carried out in Douala (United Republic of Cameroon) in 1970-72, found that, of 337 individuals arrested by the police, 204 (62 per cent) were described as being without fixed lodgings.[3] It is of course true that living with parents does not necessarily imply the relationship of authority and obedience that might be expected. Individuals committing offences fell into the four categories set out in the table 7. Because of their ages, these children were not classed as unemployed. They were accused of being deviant or marginal which hardly describes the social environment which they inhabit.

Children at school and children who do not attend school, do not have the same status in the eyes of the population and the authorities. These are prejudiced in favour of the student on the sole basis of the fact that he or she is at school; the individual who does not attend school is, on the other hand, regarded with suspicion. However, as we have seen, the situation can be completely reversed and it is the educated children who are mistrusted by some of the population because they have learned many things from books that may have helped them to secure diplomas, but they nevertheless have no practical experience and abilities. On the one hand, parents realise that the new society requires technical skills which they themselves do not possess but that children can acquire at school; they also know that the future will not pardon illiterates. On

Table 7: Residential status of young law breakers on indictment, Douala, 1970-72

Residential status on indictment	No.	%
Living with both parents	65	19
Living with father only and perhaps other wives of the father	23	6
Living with mother only and perhaps other husband of mother	45	13
Living with other unspecified relations or claimed to be without lodgings	204	62
Total	337	100

Source: Own survey. See also Bekombo (1968b, 1972).

the other hand, they have learned through experience that young educated people are led, perhaps unwittingly, to detach themselves artificially from their day-to-day environment. Parents do not understand why a students who dissociate themselves from certain customary practices accept, as a right, the benefits that they receive as a result of the material sacrifices made by the very community they reject. The child who does not attend school stays closer to the family group and is better able to meet his or her basic needs independently. It may even be the case that the latter conforms to tradition and feels partly responsible for younger brothers and sisters to whom he or she is also able to offer gifts. It is in this way that a young prostitute, for example, having been entrusted with the care of a younger brother by her parents, may pay his school fees. From the parents' point of view, they are showing confidence in their daughter, not exploiting her.

3. Children's Employment in the Urban Environment

The children who abandon school, voluntarily or otherwise, often end up constituting a "marginal" group which dynamises the informal sector of the economy. In comparison with the male/female school population, there is an even higher ratio of boys to girls within this sector. Jobs are never well defined (as may have been the case for a European child working in a factory or on a farm); they do not bring higher status nor do

they offer wages over and above that which is required to satisfy the immediate needs of food or leisure. These children are usually employed as porters, house servants, car washers and guards. In Lagos and Accra, in Dakar and Yaoundé, they are to be found carrying on the same activities. The general economic situation, the structure of wage labour and legislation purporting to be protective immediately consign children to the fringes of the labour market - so much so that they only find a place on the margin of the "normal" subsistence environment.

The kinds of job mentioned above are usually temporary and irregular because the children themselves can leave them easily and also because frequent changes in domestic staff allow employers to pay as little as possible. These jobs are illegal for young people who can obtain protection from the authorities only when they have reached the age at which they are legally allowed to work. Below this age, children become involved in activities which are practically or totally illegal, over and above the provisions of labour legislation; trade in stolen market products, in objects taken from houses, and also in luxury contraband items (watches, electrical goods, clothes). It is likely that the commercial contraband and fraud organisations which employ these young boys are run by adults; however, boys are often arrested for stealing on their own account. The quantities of goods stolen are relatively small but the frequency with which these offences are committed make up for the low profits they attract. Similarly, young girls are arrested for prostitution more often at their own homes than elsewhere. In 1970 the age of the "delinquents" held at the central police station in Douala was as follows:

Age	No.	Age	No.	Age	No.
7 years	1	10 years	3	13 years	14
8 "	1	11 "	8	14 "	31
9 "	3	12 "	9	15 "	49
16 "	72	18 "	114	20 "	102
17 "	93	19 "	87	21 "	48

The offenders who are legally "minors" (up to 17 years old) are taken before the tribunal, which orders an inquiry into their backgrounds with the aim of placing some of them in apprenticeships as a method of social reintegration. Thus it was found that of the 635 individuals appearing in the above table, only 344 were registered with the social services (320 boys and 24

girls). These figures come nowhere near to describing the real situation, particularly with regard to female "delinquency". The statistical data are unsatisfactory and there are no precise measures, for example, for distinguishing between known prostitutes and other girls who use prostitution for the same ends (food, clothing, amusement) but who escape the attention of the law. Nevertheless, Zumbach's observation - that only a very small proportion of girls take up prostitution as a permanent activity - should be borne in mind (Zumbach, 1963). In general, the "free" life begins rather early, at about 12 years old; at this age young girls are initiated into the life of a woman and sexual practices, in preparation for marriage. Zumbach notes that "frequently, a young girl who has been a prostitute throughout her adolescence manages nevertheless to settle down when she marries".

IV. Conclusion

The situation outlined above shows that European social history is not being repeated in Black Africa and that the problem of child labour, strictly speaking, is not clearly applicable to the African context. An educational concept which requires the participation of children in productive activities as a prelude to their assumption of adult responsibilities is the background for the emerging modern urban society. This society tends to isolate adults completely from both the world of work and the world of school. Its cost often makes school inaccessible, the kind of knowledge it dispenses is often inappropriate and it frequently generates unrealistic aspirations amongst the young.

The most serious isolation stems from the incapacity of the family to provide the child with material security and school equipment, and also from its inability to provide a frame of reference - that is, the values that would help the child to adapt to the world in which he or she lives. Without doubt, these two points constitute the most important areas for research.

The way in which schooling could change its role as a factor in economic discrimination should be examined both at the national and at the family community levels. Rather than to undertake research on the relevance of schooling, it would be better to consider changes in its nature and thus in its influence on the system of social relations. Here again, such a project would be possible only if it were founded on sufficient ethnological information and also on condition that a diploma should no longer be a form of currency, the "recognition" of which is traded between countries. Following the example of certain economic projects carried out in the United Republic of Cameroon,[4] new schools should be adapted to the characteristics of the communities concerned. Communities could be

more closely involved by taking the initiative in such projects and also undertaking the main cost. This is not a question of rearranging the position of children in urban African society; a solution to the problem of child labour can be based only on a study of the structure of that society, of the prevailing ideologies, and of the various conflicts that emerge from the co-existence of different cultures and of groups originating in different social stratification systems. Given these conditions, specific research into a new type of schooling that is adapted to African reality is necessary and urgent.

At the same time, it is important to provide parents with enough information to allow them to carry out their function as educators. Education policies should therefore actively involve parents as much as children, and should aim to combine the educative principles embedded in values and practices inherited from the past along with those belonging to the modern world.

Notes

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1 See A. Labrousse: "Les déperditions scolaires et leur incidences sur le coût des élèves", in MEJEC (Yaoundé) Feb. 1970; also Le financement de l'enseignement public et privé du premier degré au Cameroun oriental (Paris, UNESCO, 1975).

2 Tribal initiation is frequently associated with an informal education process, involving access to knowledge and skills.

3 This includes those living with relatives other than parents, often a relative from the village who is also a migrant and therefore in a similar socio-economic position.

4 See, for example, C. Dikoumé: Mouanko: Etude socio-économique en vue du développement (Douala, Institut pan-africain pour le développement, 1971; mimeographed), Appendix, p. 140.

Chapter 5

The Exploitation of Children in the "Informal Sector": Proposals for Research

by Alain Morice*

I. Introduction

This chapter attempts to identify the obstacles likely to be met by researchers on child labour, especially in the urban informal sector of low-income countries. The work of children raises complex problems which make a traditional research approach using sample surveys of representative groups almost valueless. The International Year of the Child, 1979, made the subject of child work fashionable; but little hard research has been done, and one has the impression that children's work plays a more significant, perhaps even fundamental, role in the economies of Third World countries than has been appreciated up to now. While there is a widespread wish to uncover and to understand the problem thoroughly, adequate data are lacking.

This chapter treats children's work from an economic standpoint, i.e. it examines the specific roles of children in different systems of production, and in the reproduction of the labour force in an underdeveloped urban environment. Particular emphasis is placed on activities often termed "marginal", even though they are widespread and essential to dependent economies. Following on from this, we shall show how research methods should have a more qualitative and anthropological content than those normally used to study adult employment. Within this framework, several areas in which data collection would be useful are proposed: work duration and pace; migration and length of schooling; acquisition of skills; training costs, earnings and, when they exist, wages; relations between the family, the child and the entrepreneur; and the State's behaviour towards the illegal employment of young people.

II. Obstacles to Effective Research on Children

Many studies contain information on child labour. Although this is generally non-specific, it nevertheless frequently provides a useful picture of the periphery of the problem. Such data include:

- schooling and school attendance
- apprenticeship
- unemployment amongst school leavers
- population age and sex structure.

There are numerous studies on the so-called informal sector, a term about which we shall make some critical comments below. Among such studies it is possible to find information on children's economic activity but, as this subject is not usually the main focus of the research, the data are incomplete. The majority of studies do not include any information at all on children, with the exception of some data on apprenticeship. A brief survey of the literature on Africa, for example, yields virtually no data. It is as though the problem of child labour does not exist for those engaged in research on the informal sector, though they frequently recognise statistical differentiations based on sex, ethnic or national origin, length of establishment and many others. Where age is a variable, it is treated in groups (15-20, 20-25, for example) which are inappropriate with regard to children. And yet this is a problem, the extent of which is universally recognised. This, then, is the current situation, which constitutes an urgent problem, but for which investigative techniques are lacking. There are several reasons for this, which we list below.

1. The Pattern of Interests in the Work of Children

It has to be recognised that, few groups have a direct interest in tackling the problem. At the highest level, many governments avoid thorough investigation into certain questions, such as residual slavery or violent initiation rites. It is likely that investigation into children's work would be viewed with such reticence, at least if it were treated in terms of exploitation. There are two possible government attitudes towards the subject. Either child labour is made illegal, in which case the authorities will no doubt prefer to turn a blind eye to its continued existence; or there is no specific legislation, resulting in a laissez-faire policy which relies on a conspiracy of silence. It is all the easier to maintain these negative attitudes because juvenile activities tend to be concentrated in sectors where official control is difficult.

Though it certainly should not be regarded as unique, an example of governmental resistance to investigations of the extent of child labour is the report of the Anti-Slavery Society on the work of young girls in the Moroccan carpet industry (1978). Initially the government denied that "such practices are widespread" and opposed publication of the report (see, for example, the statement of the Moroccan Ambassador to London of 14 January 1976, as reproduced in Anti-Slavery Society,

1978, p. 63). Subsequently, in response to inquiries made by the Working Group of Experts on Slavery (established by the UN's Subcommission for the Prevention of Discrimination and Protection), the Government accepted that "large numbers of children aged under 12 years ... end up in the crafts sector". The Government reported that, while it was difficult to regulate conditions in the small-scale private carpetmaking enterprises, the available legislation had been applied in the public sector (ILO, 1981a, para. 370).

Because of their institutional arrangement, intergovernmental bodies, such as the ILO and World Bank, have to be cautious in their investigations of child work in specific countries. However, the ILO has regularly brought information of the kind cited above to the attention of government authorities, and has provided assistance to governments in improving and enforcing legislation. Moreover, studies and technical co-operation activities on various aspects of child labour have been intensified in recent years, being particularly stimulated by the International Year of the Child.

It is likely that hostility, or at least a degree of non-co-operation, will be encountered from those for whom the children work. Later in the chapter we shall show how difficult it is to define these people because of the overlap between family lineage units and productive units. Whoever they are, those who use child labour know very well that the practice is disapproved, if not by the law then in unwritten social rules. For research to be successful, when the children's employers are interviewed they must see that it is not against their own interests to reply honestly and fully to the questions put to them. If this confidence cannot be achieved, they may well suspect the advent of new legislation and stricter controls and will avoid answering awkward questions.

To this note of caution a further subtlety should be added which is prompted by observations we made in Africa during interviews with a variety of people on the situation of children working in garment or metal workshops. A very frequent response was that these were not child workers but apprentices (and it was only after closer questioning that the interviewees would admit that the apprenticeships were sometimes extremely long, provided relatively ineffective training and were highly profitable for the children's employers). This is important because, while Western countries tend to define an individual on the basis of demographic criteria (e.g. age, sex), this is not universal. In the case cited above the young workers were viewed in terms of their social status (apprentices) and not in terms of their age.

Finally, a word about the children themselves. It would be an illusion to maintain that, subjectively, they have anything to gain from an inquiry into their economic activities when these are necessitated by unemployment in the family, the threat of

future unemployment and an inadequate collective income. Such circumstances may lead children to carry out small-scale tasks in a more or less "informal" way. Exploitation and the ideological considerations that accompany it should not be confused: working could well impart a significant element of self-esteem to a child. It is almost certain that many children are pleased to be able to work. This raises a final obstacle, which is that the researcher may be inclined to ethnocentrism and may substitute moral prejudice for economic observation. This is particularly likely to be true if the investigator is convinced that the work being observed is ethically unacceptable, in which case communication with the group concerned would almost certainly be biased.

All the obstacles arising from the interests of these various groups can and must be overcome by applying appropriate methodologies. For example, it is probably advisable to avoid official channels; to use flexible interviewing techniques; to devise a system of reinterpretation or translation of replies; and to extend the investigation to include everyone concerned with the child. These points will be developed later. It can be noted here that the existence of these difficulties has at least one beneficial side-effect in that they compel researchers to use new and appropriate methods.

2. The Position of the Child Relative to the Researcher and to Society

The nature of this issue can be brought out by comparing the work of children with that of women. This is a comparison which can be useful, but is also risky. The constant availability of cheap labour - a necessary condition for the survival (and sometimes the prosperity) of a large number of small-scale activities - is common to these two groups. In addition, because the work of both groups often carries no social recognition, it is not paid according to the surplus value it represents. However, such analogies tend to obscure some fundamental differences because children, in their own view, are not a homogeneous group able to make themselves heard or put forward their own demands.

If the International Year of the Child and International Women's Year are compared (noting in particular the various reforms and research springing from the latter), it is clear that there are two major differences in the exploitation of the two groups:

(1) Children do not constitute either a movement or a political force capable of initiating or controlling studies on their own situation. It is unquestionably the existence of such a movement, on an international scale, that has produced such an abundant literature on the exploitation of women in their domestic enclave.

(2) The wide criticism of the somewhat paternalistic and condescending approach to International Women's Year is infinitely more relevant to the attitudes surrounding the International Year of the Child. Moreover, it is clear that, whatever the hypotheses and proposals put forward by researchers and experts working on children, they can be sure of silence from their subjects. Progress in research on child labour tends to be held back because children are regarded as "protected" beings and not as responsible individuals. Nevertheless, it goes without saying that any programme advocating the radical and immediate elimination of children's work will run up against opposition from the children themselves, at least in the non-salaried sector.

A consequence of the differences described above is that children are not the subjects but the objects of study, and this marginal position on the field of inquiry has certain methodological implications - notably an ethnocentric temptation with strong moralistic or Eurocentric overtones. This temptation can be overcome only by using investigative methods in which children play an important role at least until they become an organised social group. There have in fact been instances of social struggle during which a leadership structure was created that was quite capable of initiating its own programmes: the Soweto students are an example.

A final point is that women's status is permanent whereas that of the child is temporary; this simple fact makes it difficult to follow up studies on the situation of children, as opposed to their development.

3. Problems of Definition

The question of children's work in the informal sector leads us to consider the complexity of the three terms: work, children, and the informal sector.

(a) Work

Work, defined at the most general level as a simple exertion of physical or intellectual energy, is a somewhat unclear and undiscriminating concept. For example, we are not accustomed to considering school work, domestic activity (such as fetching water) and the assistance given by an apprentice as belonging to the same economic sphere. The first question which arises is therefore: at what point should a child's activity be called work? As an initial step a certain number of discriminatory criteria, such as the following, should be applied:

- paid work/unpaid work
- productive work/non-productive work
- full-time work/intermittant work.

In order to get away from definitions that are too subjective, we would advocate studying the question of work on the basis of whether or not it constitutes exploitation. It is in fact this idea which motivated the establishment of a study programme on child labour. The notion of exploitation can accommodate original concepts and hypotheses and an examination of the concrete mechanisms behind the work of children, instead of being restricted to a simple descriptive account. We shall return to this point, but we suspect that the terms "employment" or "work" are often euphemisms for "exploitation".

The complexity of the concept of work as applied to children may be better appreciated with the help of the following example. In technical colleges a great deal of time is generally spent on making various objects as part of the requirements for officially recognised technical apprenticeships and courses. These objects may be sold either to agents or at sales organised by the college authorities. In a single productive activity there is thus sometimes exploitation of children's work, but in other cases there is no exploitation. The implication here is that a definition of work should be related not only to the activity itself but also to its economic and social context. In certain rich countries this is beginning to be recognised, leading to demands for remuneration for housework and even for studying.

(b) Child

The term "child" is difficult to define objectively. From the outset it should be remembered that the concept of childhood is a recent one, at least if it is understood in terms of the consequences of being boxed into different life-stages. It is unlikely that this kind of definition is applicable to productive activities in low-income countries because it was developed in a different context.

The word "child" can have several limits according to which of the following criteria are taken:

- biological (puberty)
- legal (schooling legislation and labour laws)
- custom (status in the domestic unit, for example).

The basis of these boundaries is mainly a chronological and non-qualitative criterion, i.e. age. However, the adoption of a universal age criterion comes up against many obstacles:

- variations from one society to another
- the danger of a Western perception of the age above which a child becomes an adult
- geographical variations (rural/urban) and differences according to social milieux
- differences in age limits according to the sex of the child
- the methodological difficulty of follow-up; each child, by definition, passes beyond whatever limit is set.

It may be thought that schooling should carry a certain weight in the definition; in our opinion this is not entirely justified because for various reasons schooling may sometimes be artificially prolonged. For the moment, we do not propose any particular age criterion. We suggest that investigation be turned towards an examination of the adaptation of the observed activity to the biological or social situation of the child. At all costs, ethnocentrism must be guarded against: to view all the work of all children as monstrous and as a black mark against underdeveloped countries cannot help to advance research. For those from underdeveloped countries, the institution of a fixed retirement age in Western societies probably seems no less absurd.

(c) The "informal" or "unstructured"[1] sector

These terms, and associated concepts, pose many problems, and there is an abundant literature on the subject. They are commonly used to describe all small-scale activity that has little capital and a relatively large labour force and is organised in a non-capitalist way. This definition is far from satisfactory because it risks obscuring the relationship between different economic spheres through putting forward the idea of a dualistic organisation of society. In a former study, we put forward our conception of this sector as "superexploited" in economies dominated by multinational enterprises. This provides an organic rather than a descriptive definition of the activities in question. If this conception is valid, the exploitation of child labour is seen as a component of the permanent process of surplus extraction from the sector. We shall return to this later.

A fundamental point here is that those activities which are called "unstructured" are, in reality, usually highly "structured". Even though many studies show the dependent and exploitative relationship between the formal and informal economic sectors, this observation and the empirical evidence supporting it are usually ignored. Nevertheless, it is very important to know whether children are included in the networks which span the two sectors and to identify their employers.

At the time this text was being completed, a newspaper article referring to the work of children in Asia offered an example of the way in which children's activities may bridge the two sectors: "Finally, many illicit street vendors of fruit and miscellaneous objects, and newspaper sellers, have to account for their earnings at the end of the day to unscrupulous businessmen who exploit them." (Viratelle, 1979). The most common fault found in purely descriptive studies is their failure to identify the centres of power and capital accumulation and an overhasty characterisation of petty activities as improvised and independent. In our opinion, the "unstructured" sector is in fact structured in two ways:

- through its submission to the dominant capitalist mode of production
- through the existence of organised groups within it.

Many small-scale urban enterprises employing numbers of children as shoe-shine boys, newspaper sellers, car washers and even beggars observe certain rules which, although not necessarily obvious, are none the less strict: admission into trades, territorial rights, and redistribution of earnings are some examples. This does not mean that there should be attempts to invent structures where they do not exist, but the theoretical and methodological orientation must be maintained, which implies that an inventory of the modes of organisation underlying activities which are apparently unconnected and improvised should be established. We were able to observe the existence of structures within the so-called "unstructured" sector in Kaolack, the second largest city in Senegal. Young people transport clients in motorcycle taxis from one point to another in this very spread-out city. To an observer, this looks like a fragmented, small-scale activity. Not at all: the vehicles are owned by civil servants and others who invest in the purchase of vehicles (often putting themselves into debt) and rent them out to the young people daily. The youngsters themselves are organised into fiercely competitive "garages" with strict rules for admission and which are protected to varying extents by the local authorities.

Finally, we recall certain characteristics of petty urban activities that have emerged from previous studies.[2] In general, petty informal activities:

- produce, at low prices and under heavy competitive pressure, value for large-scale concerns (by undertaking piece-work, subcontracting and client credit, for example);
- still under the same competitive conditions, provide goods and services for wage earners in the modern and

public sectors and for the urban poor, thereby contributing towards lower wage rates; it is clear that, in less industrialised countries (or where industry is export-oriented), the prices of informal sector products are much lower than imported manufactured goods even when both have the same use-value;
- incidentally play the role of a "reserve army", taking on the burden of job creation, and exerting an indirect pressure on salaries in the formal modern and state sectors;
- often operate in fragmented markets where capital is not interested in investing.

The consequences of these characteristics for the question which interests us here are clear: cheap and even unpaid labour is an indispensable element in the survival of many petty activities because of the high degree of competition. It is in this sense that a prior scientific and non-empirical definition of the so-called informal sector is necessary for a more profound analysis of the role of children within it.

However, the identification of the relevant trades that is needed if research is to be focused comes up against several difficulties:

- scope of the investigation: should this be limited to urban areas or, bearing in mind the similarity of tasks, should rural and semi-rural areas be included?
- the overlap between domestic and productive units: for instance, where "informal" productive activities are controlled by and organised around a lineage, it would probably be useless to try to determine whether a child's work arose from the household or from the enterprise.
- children work under two distinct arrangements: more or less independently, or for another individual or group who in exchange provide lodging, food and perhaps money. Both these situations must be expected and must be taken into account in the methods of investigation adopted.

To conclude this discussion of the obstacles which cannot be disregarded when examining the question of children's work in the smallscale production sector, we want to underline the fact that, in our view, these difficulties will not be overcome by initiating vast projects. The urgent and essential tasks are to formulate theoretical systems and to identify research themes; if this is not done there is a risk that the conceptual and definitional problems outlined above will persist.

III. The Theoretical Framework

1. Sources of Children's Work

The work of children in the small-scale production sector must, in our view, be approached through its specific and organic aspects: on the one hand children's work is one of the essential mechanisms of non-capitalist but capital-dependent economies, and on the other, it plays a special role in the extraction of surplus value and in price formation.

With respect to the potential pool of juvenile labour, we find two phenomena. The first of these is rural to urban migration. The dismantling of subsistence economies, and the advent of export-oriented plantation agriculture, has led to a considerable increase in urban populations. Children have been deeply involved in this process because their agricultural work was no longer secure following the destruction of the delicate equilibrium between subsistence and commercial production. In addition, the birth rate has not dropped. Statistics show that urban populations are relatively young, a consequence of the rural exodus of young people. Children arriving in the cities alone are usually accommodated by families who themselves face employment problems: putting these unproductive and costly individuals to work is thus a primary objective of the family with which they live. This must be seen in the more general context of urban poverty, itself partly a product of accelerated rural-urban population drift. If several members of a family are unemployed, the income contributed by a child is by no means negligible; it may even be indispensable. The position of girls in this type of situation is particularly revealing: school is for them a luxury, apprenticeship would offer nothing and the main objective is for girls to be in good employment before marriage, especially with a view to providing for the expenses of the wedding.

The second phenomenon is premature school leaving. There is widespread agreement that since the 1960s, education systems have failed to some extent, as a result of their lack of success in teaching basic skills and in opening the way to a job which justifies the years spent at school. Very few policies have been able to stop the massive wastage of schooling that can be observed in most African countries from the primary level upwards. In the hope of learning a productive trade and in the frequent absence of institutions specialising in and adapted to the multiple activities around which urban employment revolves, young people who drop out of the education system turn towards small businessmen and self-employment. Thus it is often argued that apprenticeships offer the most appropriate solution where the education system has failed to pass on basic skills. This does not mean that all apprenticeships do actually lead to acquisition of the desired qualifications

and competence. On the contrary, apprenticeships seem to be above all a convenient no man's land untouched by legislation, where the small entrepreneur is in undisputed control of his apprentices, of what he teaches (or does not teach) and of the length of the apprenticeship.

2. The Economic Use of Children

It is here that, in the production system being examined, everyone becomes involved: the State, which does not take financial responsibility for training; the child's family, which does not have the means to meet the high costs of a schooling which may have no evident immediate advantages; the small businessman, of course, or the contractor (who may be a member of the family), for whom the children are an inexhaustible source of cheap, even free, labour. Since the strength and durability of the informal sector reside in its low prices, an extremely cheap workforce is an indispensable condition for its survival. It is important to note that if, other things being equal, illegal "apprentice" labour (and that of children in general) were to be instantly and completely stopped, many small production units would be doomed to immediate closure because they operate on the basis of minimum margins. Apprenticeship, seen as an unpaid labour contribution, plays an organic role in the formation of low prices in and the maintenance of a small-scale, pre-capitalist production. In the end, apprenticeship itself aggravates competition in the heart of the producers' camp, and a priori each boss must look askance at his apprentices when the time comes for them to set up on their own. This explains a point mentioned above, i.e. the artificial prolongation of the apprenticeship period, and the fact that many apprentices complain that they are not taught their trade properly. To complete the vicious circle, the use of children for secondary and unspecialised tasks constitutes the first excuse given by bosses for not paying them. In the formal sector, apprenticeship, which is found mainly in artisanal and industrial activities, is usually more strictly controlled with regard to age, conditions of work and methods of payment.

It is true that apprenticeship is not the whole story and that it covers the older age groups only. Nevertheless, inasmuch as it results in underpaid or unpaid work (and sometimes even in work that is paid for by the apprentice), we think it entirely relevant to the subject of children's work in general.

The London-based Anti-Slavery Society's report on girls' labour in Morocco's carpet industry (Anti-Slavery Society, 1978) gives a particularly cogent example of the economic use of children. In addition, it lends support to our view of the informal sector. The report makes the following allegations:

(i) The background to girls' work in Morocco is "the economic reality which is that of dependence", as indicated in the introduction to the French text (pp. 964-966).[3] According to this introduction Morocco's economy "is still that of an underdeveloped country without an industrial infrastructure and which supplies the West with agricultural products, staple foods and items manufactured under subcontract". The introduction adds that "the increase in the number of children being exploited" is accompanied by a variety of other factors also revealed in the report, i.e. such as the decline in school attendance "which currently leaves half the rural children without schooling" and ineffectual labour legislation.

(ii) There is considered to be active or passive support by the State for this exploitation. Examples of passive support cited include the inefficiency of labour legislation surveillance mechanisms ("Work inspectors very seldom call and generally expect to be paid for their silence" [p. 56]); legislation for the protection of minors reaches only the fringes of these activities (in "handicraft co-operatives and apprenticeship schools" women and children are not "salaried workers in the sense of the current Moroccan labour legislation" and this is admitted by the government [p. 46]). Examples of active support are also given: "Government policy is to give all possible aid to exporters of rugs: wool is imported duty free ('temporary importation') on condition that it is exported in the form of rugs. Export duty and certain taxes are waived" (p. 7). Again, "Though government-owned factories generally conform with the law in regard to recruitment and in most respects set a high standard, the maalema survives in a few state factories as well as in most of those in the private sector" (p. 57). (The maalema system will be described below.) Finally, "More than half the working force of three state centres was made up of children under 12. In this respect the State does not abide by its own legislation, for even apprentices under 12 are illegal" (p. 9).

(iii) There is a hierarchy of control encompassing even small-scale carpet production enterprises: a number of small workshops may belong to a single owner who is sometimes foreign; marketing, particularly in Europe, is in the hands of large Western companies; small workshops sometimes subcontract, and are therefore totally dependent on modern marketing channels. This reveals the highly structured nature of the carpet industry even when carried out on a small scale. Reduction of labour

costs seems to be a constant preoccupation: "Most Moroccan manufacturers consider that Morocco is now in first place for North African rugs and many did not hide the fact that low labour costs made Moroccan rugs highly competitive. In Iran, for instance, legislation forbids the employment of children under 14 and this has considerably raised the cost of Persian rugs" (p. 7).

(iv) Families existing on a subsistence income are eager to find work for their daughters. Workshops are often located near bidonvilles (shanty towns) or poor districts. The report also points out that "Parents play into the hands of the factory owners in their desire to see their daughters bringing in even a small sum of money" (p. 10).

(v) Traditional social relations are present. Recruitment and dismissal is often in the hands of female intermediaries (maalema) who receive a salary from the employer; the latter thus remains within the letter of the law but does not know the age or the wages of the girls employed. The maalema acts as supervisor and pays the children whatever she likes (usually on a piece work basis). This paternalistic system benefits from all the advantages of work done at home but under conditions of raised productivity. The report describes the maalema system as "a relic of the old craftsman-apprentice structure" (p. 11). Of the state rug-making centres visited by the Society, "conditions were worst in the two centres using the maalema system" (p. 10).

(v) Recruitment methods, working conditions and wages are often deplorable, although the investigators observed that government establishments were better (p. 9). Small girls are engaged from the age of 8, and there are incredibly long working hours (up to 72 hours per week), very little or no paid holiday, meagre wages (by the piece) or none at all for apprentices, undernourishment and overwork.

(vii) There is confusion between co-operative and industrial operations on the one hand and between apprentices and wage workers on the other. In the first place, the co-operatives are not groups of producers but "undertakings run by the State on commercial lines with the workers receiving some sort of remuneration for their work" (p. 47). This system encourages the extreme variations found in working conditions and wages. In the second place, it is difficult to distinguish between "schools of apprenticeship" and "craft centres with

apprentices" (p. 47): the former often function in the same way as the latter.

(viii) Finally, it is important to note that the Anti-Slavery Society visited the factories and workshops twice, in 1975 and again in 1977. Between the two visits the team "found that the situation, far from having improved, had worsened" (p. 6).

In reply to these allegations, the Ministry of Labour and Social Affairs of Morocco reported that it had instructed the labour inspectorate concerning the measures to be taken to ensure that labour legislation, and particularly provisions relating to conditions of work and occupational safety and health, were respected in undertakings in the carpet industry, and also instructed the inspectorate to inquire into conditions in the undertakings where child labour was reported by the Anti-Slavery Society since the descriptions and analysis it contains have implications far beyond the particular case of the Moroccan carpet industry. The similar role played by children for subcontractors in certain Asian countries is well known, and another Anti-Slavery Society paper (Banerjee, 1979) provides some suggestive data in this regard.

3. Specific Characteristics of Child Labour

Children's work possesses a variety of characteristics within the framework of its economic role at the heart of the informal sector. In brief, we can note the following:

(i) Labour supply is plentiful because of continued high birth rates and high rural emigration. This places children in an intensely competitive environment with little bargaining power over the conditions imposed on them.

(ii) Children do not have a "right to work", and this makes the juvenile workforce easy to manipulate. The duration of employment and its regularity are determined by the unpredictable ebb and flow of orders and markets. The small businessman or trader can underemploy a child if production threatens to drop.

(iii) The illegality of much children's work makes their dismissal easy. Political and trade union organisation, which provide the only chance they have of improving their situation, is difficult because of their age, entrenched paternalistic exploitive systems and lack of social recognition of children as producers.

(iv) The unspecialised nature of the work children do implies that they may be given a wide range of tasks, depending on the production mechanisms. In addition, certain tasks are technically well suited to children and are highly profitable from the point of view of the employer; this is the case of the "little hands" in the tobacco and match industries of the Indian peninsula.

(v) Finally, some juvenile activities are particularly well adapted to clandestine and illegal operations because of children's physical and psychological characteristics, such as agility, running and hiding, the ability to keep quiet or to mislead. Although somewhat tainted by subjectivity, these points should not be ignored in a study of the tasks in which child labour is concentrated.

It is not claimed that these few reflections encompass all the economic questions relating to child labour. It is nevertheless hoped that they show how these questions can be approached. While there is little doubt that exploitation of children in the Third World appears to be concentrated in the informal sector, it is necessary to identify the practical consequences and try to locate precisely the specific niches occupied by children in the economics of developing countries.

IV. Research Themes and Methodological Tools

1. The Need to Disaggregate Different Types of Children's Activity

The productive and commercial activities of children should not be treated as if they were a homogenous group.

(a) Basic distinctions

We give here a number of elementary distinctions which must always be observed:

- girls' work/boys' work
- age (e.g. less than 12/12-16 years)
- permanent/intermittent work
- independent work/work for a group or individual (in terms of remuneration)
- work with a training component/unskilled work

(b) Modes of production and exploitation

A theoretically more fundamental disaggregation must be directed towards different modes (or forms) of production and to the particular modes of exploitation associated with them.

(i) Work in the domestic unit must occupy a separate category as, to the extent that it does not fall within the modes examined below, it is not in itself an object of exploitation. If exploitation is defined in terms of the appropriation of all or part of the product of the labour of others, there must necessarily be a product. In its narrow sense (in practice domestic and productive activities frequently overlap) domestic work is a component of the division of tasks within the family unit and is accompanied by redistribution of earnings amongst the various members. It is essentially reproductive labour, servicing family members who are part of a workforce employed elsewhere. If exploitation is present it is indirect. This point is a difficult one, and not free from ambiguity - if the domestic work of a child is taken over by a servant (of the same age perhaps) the economic characteristics of the same work change.

(ii) There is also a quasi-slavery category, that involves not only appropriation of the child's labour but also of the child directly. The existence of such social relations, which are also found in activities serving capital, is facilitated by ownership rights over children by their older relatives. This is a phenomenon typically found in child prostitution. This category of exploitation, as well as the next, cannot be explored without studies of the networks which support apparently independent activities.

(iii) A third mode of exploitation, which we shall call quasi-feudal, is based on a dependent personal relationship between the child and his or her employer. The child supplies labour within a paternalistic relationship in exchange for which the employer (who could be a parent) offers protection, lodging and food. Craft and small business apprenticeships would come into this category. The use of low-paid or unpaid labour is, as already noted, the condition for the survival of the majority of small-scale urban enterprises. However, this is an inherently contradictory form of exploitation, for although the creation of a commodity involves appropriation of the child's surplus value, children's work is not socially recognised and cannot be freely sold on the labour market. It seems that it is correct to talk in

terms of "superexploitation" because the juvenile labour force is not paid at the same rate as adults doing the same work, thanks to the maintenance of quasi-feudal dependency. In this category of superexploitation, child-created value is essentially extracted from the absolute surplus, that is, through protracted working hours. A characteristic of craft-type production is the low investment in equipment in relation to the volume of work undertaken. It follows that a profit will only be made if two conditions obtain: a long working day and low wages. It should also be noted that superexploitation can be found in large-scale capitalist enterprises. When this is the case (we have given an extensive example above) there is every reason to suppose that, even if work organisation is capitalist, the social relations of production are quasi-feudal (this is doubly true in the case of children because they are not usually in a position to sell their labour to the highest bidder).

(iv) In contrast to the preceding categories, commercial activities can extract value created in another location. These activities, very often undertaken by children, include street vending, a variety of trading, door-to-door sales, etc. Within this category, distinctions can be made according to the individual who receives the proceeds: either the child works for an adult who receives part of the proceeds, or the child works independently. The latter is probably much less common, over long periods at least, than certain observers maintain. In order to clarify this point, research should seek to identify the commercial networks. It is possible that appropriation of sales proceeds can take the form of protection by an official or anonymous institution. The illegal character of some "marginal" commercial activities naturally favours the development of protection rackets and their possible existence should always be taken into account.

These typological suggestions are not complete. In particular, we have excluded all activities outside the small-scale urban sector, such as agricultural work or those directly and integrally absorbed into capitalism. We simply wish to insist on the necessity of introducing relevant distinctions between various children's activities, not as a function of subjective empirical categories but in relation to a theoretical and economic position. Rodgers and Standing's chapter in this volume is, on this point, more rigorous and exact than our own proposals.

In summary, we strongly maintain that, in our view, child labour is, in general, characterised by the convergence of

inherited social relations and an exploitation, of which the ultimate gains - whatever the intermediate processes - serve the dominant capitalist mode of production.

2. Research Themes

In this section some lines of research will be proposed which, it is hoped, will help in tackling the difficult problem of child labour.

(a) Historical analyses and their relevance in present day low-income countries

We strongly advocate a study of child labour in Europe from the beginning of the Industrial Revolution to the end of the nineteenth century. This proposal should not be misinterpreted. Such a study should not seek to make comparisons through structural analogies or strained parallels with today's Third World, thereby reducing the problems of the latter to mere historical phenomena. On the contrary, a historical analysis of child labour in Western societies must be oriented towards a better understanding of the specific mechanisms operating in underdeveloped countries. During the whole period of industrialisation of Western countries, the exploitation of child labour had two aspects. First, in the absence of protective legislation, there was unconstrained use of child workers in non-capitalist activities in an attempt to slow or reverse the decline of these activities. Second, there was direct, extensive and cynical exploitation of children by capital itself (mostly in mines and the textile industry). If, however, these two aspects were to be directly applied to present-day underdeveloped countries, we should find the parallels to be weak. Public enlightment, and the use of advanced technologies based on a high organic composition of capital (the relationship in terms of value between equipment and the wage bill), have led to a weakening of the role (if not the number) of children working in industry; the type of exploitation experienced by children in the nineteenth-century Europe is, in the present world, being confined to sectors which are difficult to modernise (e.g. crafted carpets or packaging of "beedi" cigarettes).[4] It would therefore be a waste of time to try and prise out a direct appreciation and understanding of current systems of child exploitation from studies of European societies up to the last century. Having said this, such a study could help in understanding the following processes:

- The evolution of the birth rate in relation to economic processes; in particular the stage of accumulation at which the birth rate began to decline and the different types of industrialisation to which family renewal strategies corresponded.

- Other demographic changes in relation to the economy, notably the mortality and marriage rates corresponding to different stages of economic development. The hypothesis underlying this suggestion is that the high turnover of the juvenile workforce, itself related to high mortality and/or early marriage, allowed superexploitation of children even beyond the physical minimum necessary for reproduction of the workforce.

- The role of children in capital accumulation, in the formation of surplus value and in the domestication and proletarianisation of the peasantry.

- The significance of the introduction of compulsory schooling and legislation on hours of work and child labour; in particular, were mass schooling and the reduced productive role of children two outcomes of a single set of conditions, or did school contribute to the disappearance of child labour?

- The development of thinking on the place of the child in different social groups.

If care is taken not to fall into the trap of "Eurocentrism", this type of study will yield invaluable material which could speed the development of interpretive schemes of child labour in the Third World, and would discourage subjective or moralising approaches.

(b) Research on government policy towards child labour

Any even modestly comprehensive research must include an analysis of all proposed or existing policy interventions as well as a detailed study of legislation in force from the point of view of both its nature and its efficacity.

The earliest recommendations for the total and world-wide suppression of children's work were made long ago. In practice, however, we have not come anywhere near this objective. Thus an analysis of the implicit and proclaimed aims of policies would be of considerable interest. In this way the somewhat vague and idealistic question: "What type of legislation?" would be replaced by the more realistic one: "Why is there no legislation?" or, if it does exist, "Why is it not applied?"

In this way the legal/moral position normally adopted would be revealed as an obstacle to more scientific studies based on objective facts. Similarly, the question of whether the anomaly is the existence of children's work or the way in which children are exploited could be resolved. Another fundamental question needs to be posed at the same time: "Is it possible to

eliminate child labour without changing the economic and social systems harbouring it, especially the dependent relationship of such systems vis-à-vis developed capitalist economies?" It would also be possible to measure the efficacity of legislation which does not correspond to the productive forces involved and to examine the difficulties experienced in applying international recommendations. Finally, such a study could test the relevance and consequences of certain more general strategies officially aimed at improving economic structures: Does rural development aggravate rural emigration? Does industrialisation in the name of capital modernisation contribute to unemployment? Is the promotion of "dynamic" artisanal activities ultimately a cause of superexploitation of children? The implications of such strategies for children are important and need to be assessed.

(c) Data collection

The collection of information needs to be structured around those hypotheses on the economic roles of children which need to be tested. The following points are intended to show that the rejection of an empiricist approach, which sometimes leads to an almost random collection of information, has methodological implications. On the basis of the hypotheses noted above, we suggest that data should be collected on the following subjects:

(1) Migration, specifically the release of labour from rural environments: nature, volume, modalities, family strategies.

(2) The effects of family structure on children's work: role of direct antecedents, other kin, the extended family; competition or reciprocity between parents and children. Inquiries should not stop at the formal parents but also include organic lines of descent.

(3) The networks, circuits and hierarchical channels that host the exploitation of children's work. The necessity of including this point has already been stressed. Data must aim to identify power and decision-making centres, financial circuits, the routes along which earnings are channelled and the beneficiaries of these earnings, the links between small non-capitalist enterprises and their suppliers, distributors and the State.

(4) The children's social origins, length of time spent working, schooling and qualifications.

(5) Working hours and conditions and their fluctuations, related to the economic needs of production and distribution.

(6) The types of task allotted to children in relation to learning skills and the degree of responsibility they are allowed.

(7) The level and type of remuneration - negative (apprenticeship fees, gift on finishing a course), zero or positive - and compared with what an adult would receive for the same work. This information must take into account the main elements relevant to the cost of the reproduction of the labour force.

(8) Mortality, specific illnesses, relative susceptibility to parasitic and viral attacks, undernourishment, the risk of occupational accidents. In order for the results of this part of the inquiry to be useful, these questions should also be directed towards the adult population who worked during their childhood. The main aim here is to establish whether, and under what conditions, the exploitation of children involves excessive physical demands and a significant reduction in life expectancy or in lifetime health status.

(9) An assessment in terms of value (with its monetary equivalent) of the additional product accruing to employers as a result of using child labour. There is no point in pretending that this would be easy but, using the methods proposed below, it would be possible to design indirect measures and make estimates.

(10) Concealed juvenile activities that traditional types of inquiry tend to ignore: domestic work, illicit street trading, trafficking and prostitution, for example. Here, more than for any other aspect of the problem, the development of a new methodology seems indispensable.

(11) Finally, the ideological positions of different groups with regard to children's work. Those of children themselves: self-esteem, fatalism, submission or rebellion to authority, expectations, perception of work in general, attitudes towards wages, interest in tasks, awareness of differences in working conditions.

Most of the proposed research themes require data that are not necessarily numerical. The choice of themes is guided by the theoretical relevance of the information, but this does not

exclude purely statistical inquiry; the choice is simply based on priorities ordered according to our analysis of the causes of children's work.

3. Methodological Approaches

(a) Some approaches to be avoided

Direct quantitative assessment of the number of children at work is unhelpful and misleading. The information obtained through this method can reveal declared employment only and not the clandestine, illegal and occasional workforce which is, without doubt, where the core of the problem is to be found. If, in spite of this, it is necessary to have a measure of the numbers of children involved, this would have to be obtained through cross-checking, and making approximations from indirect sources such as the distribution of jobs between the formal and informal sectors; rural-urban migration; school attendance and school leaving; apprentice registration; housing, consumption and income of domestic units, etc. A combination of these sources should lead to a more satisfactory and controllable set of figures than direct enumeration. The theoretical problems connected with identifying the juvenile population at work must in any case be resolved before one attempts to establish a representative sample.

Another trap to avoid is that of exaggerated empiricism. This is characterised by an unending multiplication of questions in the absence of a system of hypotheses; a wish to reduce all the factors studied to numbers; a claim to be exhaustive; and the adoption of preconceived, descriptive typologies into which all observed variables are squeezed willy-nilly. Such dogmatism carries an even greater risk, namely the consideration of only those individuals who exemplify preconceived norms, and the rejection from the sample of all that is not easily identifiable and observable.

Within the same context, it is proposed that the use of only long and closed questionnaires be rejected. Investigative tools are not neutral. Surveys on the informal sector have often been carried out with questionnaires containing over 100 basic questions; what is more, interviewers tend to be paid on the basis of numbers of questionnaires completed. Moreover, there is the problem of nonresponse. At best, non-responses are measured and it is possible to calculate the response rate to each question; however, non-responses are often simply ignored in the final statistics, much as non-voters are ignored in official elections. With regard to refusals to respond, grounds exist for believing that there are a great number of these but that they are hidden because another individual is asked to answer the questionnaire instead. This results in considerable bias in the representativeness of the sample, always supposing

that the latter was well selected in the first place. With regard to children's work, it should be remembered that employers have nothing to gain (and perhaps feel that they have much to lose) through co-operating in inquiries concerning their young employees. An even more serious distortion results from the exclusion of the reasons for non-response or refusal to co-operate. Thus a programme of data collection on the work of children can expect to come up against a double difficulty, not only for the general reasons given above but also because of the low reliability of the information likely to be obtained on such a delicate question.

(b) Some suggested techniques

Who should be interviewed? Our previous discussion has shown that we should be prepared to contact a wide range of people. If exploitation of the juvenile workforce is enmeshed in a strong hierarchical structure, this should be exposed and information should be obtained from all the participants (employers, biological and/or surrogate family, employment, purchasing and distribution organisations, administrative bodies and government). It goes without saying that the inquiry methods must be adapted to the groups in question, a point to which we will return.

Children at work (and adults who worked during childhood) should make up the core of the sample, and the types of investigation envisaged would include their direct involvement in the planning, administration and use of the studies. On the basis of this commitment we can progress from outside recommendations to questioning the children themselves. In our opinion, studies that view the child as an individual who is, above all, irresponsible and in need of protection bear the unacceptable imprint of paternalism. To take a similar case, it is widely argued that exclusively masculine attempts to analyse and attack women's oppression in the West entailed the takeover and re-interpretation of women's demands, with the ultimate effect of intensifying the very subordination they were purporting to attack. If this analysis is correct, it is clear that it is even more relevant to the case of children. The ILO should seize the opportunity presented to it by international concern over this question and let the children themselves speak.

A rejection of the quantitative and empiricist methods that are traditionally employed in research on the Third World need not present practical difficulties and may, on the contrary, be an advantage. The approach taken in this chapter has led to the proposal of essentially qualitative empirical material and analytical tools, but all quantification is not excluded. With this in mind, investigations should observe a certain number of ground rules:

(1) Complete coverage of the population should not be attempted. Instead there should be an analysis of a small group of individuals chosen for their theoretical rather than numerical credentials. Selection would thus focus on an activity where child work is assumed to be frequent and organically essential to the creation of value. A thorough examination of a single activity is greatly preferable to vast surveys that try to encompass all the problems of an entire region.

(2) Adopt, whenever possible, non-directive or semi-directive interview methods in order to document the various issues raised in this chapter. In this way unexpected information can be dealt with and the interviewee can respond indirectly, perhaps while talking about other things, to the questions put forward. The greater the resistance to the inquiry (and there is likely to be considerable resistance in the case of children's work), the more appropriate this method.

(3) Attempt to introduce into the urban, small-scale activities environment anthropological methods that have proved themselves over a long period in the rural sector. An anthropological approach rests on a fundamental principal: expect to give, and lose, a lot of time. More precisely this means that, when there is no shared identity between researcher and investigator, it is better (and not much more expensive) to use participatory interview techniques which require long contact with the selected groups (cf. Devauges, 1977 and Salem, 1979, who have employed this method). It is not recommended that payment be according to interviews completed because this tends to diminish the quality of the information collected. Treatment of the results yielded by an anthropological type of inquiry combines modern (computer) and traditional (manual, content analysis) methods.

(4) Establish interpretative systems for free responses, the inevitable accompaniment to the anthropological method. In fact, such responses do not always reflect reality but can be interpreted according to certain codes. For example, if a child replies that he or she wishes (or does not wish) to work, this information would have to be analysed (and the gap between the information and the child's precise feelings) according to whether he or she is alone or with an employer, parents, an official, etc., and according to the child's perception of the reasons for the interview. Thus a decoding system must be developed, always remembering the risk of ethnocentric

interpretation, as well as the need for an extended interview (even re-interviews) and cross-checking between different assertions during the interview. Another example, for which a decoding system would be required, is the dissimulation of employers who, sensing that they are involved in proscribed or morally unacceptable social relations, tend to say that they employ children in order "to do them a favour".[5] This type of claim should be assessed in combination with other information (attitudes of parents, children, authorities, social group) and should contribute towards the formulation of interpretive keys. In general, a variety of interviewees will permit comparison and cross-checking of sources. In particular, individuals who directly exploit, in their social relations, the labour of children talk of the subject in a devious manner which can be truly assessed only in the light of the experiences recounted by others (suppliers and traders, the State, and, of course, the children).

(5) The anthropological method can be usefully combined with other approaches: analysis of legal texts and governmental declarations; administration of questionnaires to enterprises to discover sources of inputs and labour as well as the destination of the products, turnover, fiscal constraints, gross and net revenues and structure of the workforce; inquiries amongst families with regard to migratory history and the position of each member vis-à-vis productive employment, reconstruction of family life histories; and studies of investments by multinational enterprises in different sectors of Third World countries.

V. Conclusion

In conclusion, we should like to return to the subject of interventionist policies and the ideologies underlying them.

There are two approaches to the study of child labour in the informal sector. The first is concerned with supporting and encouraging certain informal activities while at the same time "protecting" the children engaged in them. This strategy is, in our opinion, ambiguous if not actually contradictory. While suppression of the most oppressive aspects of informal activities is the apparent and undeniably worthy aim, the success of such a strategy might very well intensify the problems associated with child labour. For example, policies designed to assist the most "dynamic" artisans (market protection or tax concessions, for instance) will tend to increase inequality in the artisanal sector as a whole. In addition, there is reason to believe that it is precisely these favoured artisans who systematically use the free labour of women and children. Finally, if

measures for the protection of children are applied without taking into account the economic realities facing the informal sector workforce, the clandestine nature of much juvenile labour will simply grow, further aggravating children's insecurity.

The above comments indicate that this first approach, which we shall term "voluntarist", is somewhat unrealistic. The second approach, which we have attempted to outline to some extent in previous sections, is based on concrete social and economic observation and not on more or less humanitarian and Eurocentric notions.

It is true that this second approach is highly tinged with scepticism, even pessimism, as to the validity and the simple efficacity of interventionist policies, other things being equal. But our position is not negative, because it is guided by the conviction that children should collectively decide for themselves whether they work and under what conditions. Proposals to eliminate child labour, without compensation for family income lost thereby, should be viewed with great caution. Child work may not be morally natural, but it is economically natural under conditions of extroverted accumulation, economic dependence and extreme poverty. We do not agree with those who set out to eliminate child work without taking these facts into account. It would be of great interest, given this argument, to examine the effects and limitations of the measures concerning children (and women as well) in the recently independent Third World countries of which the governments have followed socialist-oriented economic policies.

How should the voluntarist approach, which seems to dominate many international recommendations, be analysed? We should like to suggest that the characteristics of the latter can be reduced to three "-isms": moralism, legalism, and paternalism.

Moralism views child work as an anomaly (although the same is surely true of all exploitation of labour). From this standpoint, one could even maintain that children are unnaturally "condemned" to 10 years of schooling, if one takes into account the energy consumed both by schoolboys and street traders, for instance. The moralist conception of the problem originates in the Western division of human life into successive stages, i.e. schooling, production, retirement. The universal application of such Western criteria seems to us to be quite unacceptable.

Legalism, a corollary of the moralistic attitude, is concerned with the establishment of new regulations, recommendations and laws. Since its foundation in 1919 the ILO has been much concerned with the gradual elimination of child labour and the promotion of the well-being of children in fields within its competence.[6] At the very first session of the International Labour Conference, which was held in the year of its foundation, a Convention was adopted which fixed the

minimum age for admission of children to industrial employment at 14 years. Between 1919 and 1965 ten Conventions on minimum age for admission to employment in various economic sectors were adopted. Finally, in 1973, the Convenction concerning Minimum Age for Admission to Employment (No. 138), which replaced all the previous relevant Conventions, was adopted. It should be mentioned, however, that in 1980, seven years after the adoption of this Convention, only eight developing countries (half of them in Latin America) had ratified it. It seems to us that the tendency of legalism to transform a socio-economic problem into a legal one should be carefully watched.

Finally, in our opinion, the paternalist position constitutes the principal ideological basis of voluntarism. We have experienced International Women's Year and the International Year of the Child, but no-one dares propose the Year of the Proletariat because the paternalist overtones would be inescapable. The idea of a child as a human being in need of protection is ambiguous: on the one hand it is desirable that children, in common with all human beings but especially by virtue of their physical limitations, should benefit from laws forbidding their exploitation; however, to reduce the problem of child work to one of "protection" is to exclude children from any decisions about themselves and to create inferior beings. In our view, the only acceptable "protection" (and one that does not contradict the preceding paragraph) lies in giving children the right to be heard and to organise; up to now, this right has been immediately and violently repressed when children have claimed it.

The "protection" approach is based on certain presumptions about the special position of children. Typically it is argued that children are the victims of: (1) a lack of a stable family life; (2) a lack of recreative activities; (3) contact with delinquency; (4) physical risks; (5) a lack of education.[7] All these points could be applied to workers of all ages in underdeveloped countries, not just to children. The problem is not one of age but of exploitation.

Notes

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[1] "Non-structuré" is the most common French translation of "informal". The two concepts are ideologically very similar. Much recent empirical work on the informal sector has been carried out within the ILO's World Employment Programme. See, for instance, ILO: Employment, incomes and equality: A strategy for increasing productive employment in Kenya (Geneva, 1972); S.V. Sethuraman: "The urban informal sector: Concept, measurement and policy", in International Labour Review (Geneva, ILO), July-August 1986; idem (ed.): The urban informal sector in developing countries: Employment, poverty and environment (Geneva, ILO, 1981).

[2] See in particular M. Bienefeld and M. Godfrey: "Measuring unemployment and the informal sector", in IDS Bulletin (Brighton, Institute of Development Studies) 1975), No. 3, pp. 4-10, from where the following points are taken.

[3] Quotations in (i) are translations from the introduction to the French edition of the Anti-Slavery Society report; elsewhere from the English version.

[4] It would be truer to say that these types of industry are not interested in modernisation inasmuch as cheap labour has an intrinsic advantage for them. To take the two examples given: it may not be by chance that patterns on crafted carpets are not uniform or that "beedi" packets are conical. If production were mechanised, these characteristics would probably disappear.

[5] cf. J. Charmes: Méthodologie générale des enquêtes sur le secteur non structuré en Tunisie and Recueil d'interviews auprès de menuisiers et ébénistes de Tunis et de Sfax (Tunis, INS, 1977).

[6] ILO: Minimum age for admission to employment, Report IV (1), International Labour Conference, 57th Session, Geneva, 1972, p. 3.

[7] This list was taken from an unpublished text, but is representative of the approach.

Chapter 6

Urban Poverty and Child Work: Elements for the Analysis of Child Work in Chile

by Maria de la Luz Silva*

I. Introduction

The first step in analysing child work is definitional: when do we regard as a child, and exactly what social category is covered by the term "child work"? There are initial difficulties in getting complete, trustworthy information; children are not supposed to be of "working age", and their economic activity is therefore not recorded in conventional labour force studies. "Working age" varies from one country or region to another, but always excludes "minors" of a certain age - in Chile, for example, those falling below the age for which there is some kind of labour regulation. The paradox therefore arises that the subjects of our study, working children, are not of "working age".

One of the complications of this paradox is that child work seems to be different from adult work; its negative connotations do not necessarily derive from the actual work done by children; nor do they arise solely from the social relations of production (although this is a basic question in the analysis of human work in general). The negative connotations of child work specifically concern the age of those performing it.

This raises several questions. Why do the ages at which a person is regarded as a minor for purposes of work vary from one society to another, and why is it not the same for children to work as for adults to work? Why is child work generally regarded as undesirable? Why is it illegal? Such questions, the answers to which may appear obvious, are not simple and need careful analysis.

The answers cannot be examined in depth within the limits of this chapter, but it is important to consider them at least briefly. We shall therefore attempt a broad outline of elements that should be taken into account in a definition of a minor in relation to work. This will lay the foundations for investigation of the economic causes of child work. We shall then suggest a preliminary classification of children's economic activities, concluding with a brief review of the effects of work on children.

II. CONCEPTS AND DEFINITIONS

1. The Family

The development of capitalism in the world has had serious repercussions on traditional family organisation. With growing industrialisation and proletarianisation, artisanal production and subsistence production of food, clothing and other basic necessities are being supplanted by industrial production. More and more consumer goods have to be purchased, forcing people without unearned income to seek paid employment. This has led to rural-urban migration in search of work and the traditional composite household is shrinking to a "nuclear" family of parents and children.

The inability of capitalist production to generate employment for the potential workforce has led to a sexual division of labour according to which the man/father is expected to be the family breadwinner and the woman/mother becomes a secondary worker, engaged mainly in child-rearing and in the domestic work needed for family survival. Thus the wage of the man/head of household has to pay for the work of the woman/mother and support the whole family. Jointly - the man contributing earnings gained in the labour market and the woman her domestic work - they produce and reproduce the present and future labour force. Later on, we shall see that this pattern is often impossible to maintain for economic reasons and that this failure has important consequences for children's work.

One of the important functions of the family is socialisation, so that, as well as maintaining their family, parents have to see that their children absorb the social standards which will permit their admission into adult society. During this process the parents' sexual division of labour is reproduced in their children; boys tend to anticipate that they will become fathers/husbands/workers-in-the-labour market, and girls that they will be mainly mothers/wives/housewives. Both boys and girls tend to adjust their personal development and skills to match these expectations so that, from earliest infancy, the foundations are laid for reproduction of sexual roles.

2. A Definition of "Child"

A "child" can be defined as someone who needs adult protection for physical, psychological and intellectual development until able to become independently integrated into the adult world. The essential condition of children is that they cannot survive without help. This help is normally provided by the family and, to an increasing extent, by educational institutions, both arrangements being recognised and supported by the law.

3. The Legal Status of Children and the Family

Society grants the family wide authority over its children by making it responsible for their nurturing and socialisation, but for some purposes children are directly subject to society's authority, exercised through its laws.

In Chile, for example, on reaching the age of 21 a child becomes an adult for all legal purposes and ceases to be subject to the parents' legal authority. However, there are many exceptions to this general rule; for example, the minimum legal age of marriage is 12 for women and 14 for men, and even further reductions in the limit can be obtained if the young people have special permission from their parents.

There are also specific provisions granting legal responsibility to people under 21 years old empowering them, for instance, to exercise certain civic rights and enter into a contract of employment. In Chile a person becomes of full age for labour purposes at 18, but children are allowed to enter employment from the age of 14,[1] with permission from their "father, or mother, or paternal or maternal grandfather, or from the institution responsible for them, or from the Labour Inspector".[2]

4. Education

Traditional education, undertaken mostly by the family and geared to teaching the skills required for rural activities, cannot meet the demands of industrial production. Education is thus becoming institutionalised and is designed to provide a basic homogeneous level of skills as well as whatever diversification and higher qualifications are required for the jobs generated by industrialisation. The physical and emotional needs of children continue to be cared for in the home, but education is now an agent of socialisation aimed at adapting the child to society and especially to future participation in the productive system.

In Chile, children are officially required to complete compulsory basic education before entering into a contract of employment in the formal labour market or before applying for higher education. This basic education consists of eight courses or grades.

5. The Concept of Child in Relation to Work

In Chile minors may legally enter into a contract of employment at the age of 14 on condition that they have special permission from their parents and have fulfilled the minimum legal school attendance requirements (Archbishopric of Santiago, 1978). An international labour Convention (No. 138) fixes the normal age limit for work at 15 years (14 where the "economy

and educational facilities are insufficiently developed") and states that proper attention must be given to the health and education, and the physical, mental and moral development, of the minors concerned. These recommendations implicitly contain the essence of the concept of minor outlined earlier.

It may be concluded that the concept of minor has a two-fold relation to work: firstly, it establishes that, until reaching a certain age, children are physically and mentally incapable of performing the tasks or of assuming the responsibilities of the world of work. By implication, this includes considering the possible dangers of such tasks and responsibilities. Secondly, in referring to child education, it introduces an historical element that specifically concerns modern production requirements. Small children have always needed adult care, but education, as understood in law and international labour Recommendations, is the special requirement of a given level of economic development. Technological progress widens the gap between the family's ability to educate and the requirements of the productive structure.

Variations in legal age limits defining "minors" for labour purposes appear to relate to the acquisition of skills. National and regional differences in industrialisation make for different levels of what the productive system requires of the labour force, and consequently of formal education. The age limit has, therefore, to be individually considered in each society, or region, or geographical area. Children carrying out productive activities together with adults in, for example, traditional agrarian economies where technological change is slow are not in the same position as children in advanced industrialised economies where technology changes so quickly that even skilled adult workers constantly need further training.

In itself child labour is not contrary to current social standards in Chile, and being marginal, does nothing to harm the system. Hence "work" is not socially proscribed even when it is undertaken by children well below the legal age limit. This implies that minors may carry out economic activities under certain conditions without being considered "deviant" and without being punished by society.

As minors are subject to the responsibility and authority of their family, only factors affecting the whole family and preventing it from fulfilling its function can explain the persistence of child work. This is what causes work by children to be classed as irregular, as it is neither "deviant conduct" nor proper to their age.

The irregular character of child work raises the question of forms of exploitation. When children have to work because the family is so over-exploited that it cannot look after them properly, they are exploited indirectly as well as directly as workers.

III. Economic Characteristics of Child Work

1. The Economic Causes of Child Work

Child work occurs mainly in lower-class urban and rural families, where its immediate main cause is that families cannot meet their children's needs; the children thus have to take on adult work to assist their parents, or take their parents' place as the family breadwinners on a virtually permanent basis. In effect, child work is evidence of the family's inability to reproduce the labour force itself.

In Chile the steep rise in unemployment over the past few years, coupled with a plunge in real incomes for the great majority of the population, has led to an increase in child work. Quantitative data are lacking, but the increase is greatest in the lowest income groups, especially those in the urban informal sector. Whelan has shown that "as a result of the economic recession demand for such [informal] services has fallen off; the market has shrunk and competition has grown because of the steady rise in the number of first-time job-seekers, now increased by women and children" (Whelan et al., 1977, p.45).

A common reaction to families' serious economic problems is that children over the age of 15 become independent and leave home. However, children in the poorest families are a family asset, as they can work and add to the family income (Whelan et al., 1977, p.29). For many families children are a reserve workforce to be used when the adults cannot fulfil their economic functions. Studies of the survival strategies of working-class families have shown that when the head of the household fails to find himself a job he sends his wife and children out to work (Whelan et al., 1977, p.45; Patricio, 1977, pp. 15-18).

In Chile unemployment among heads of households has led to a mass influx of working-class women on to the labour market. When a woman has to go out to paid employment the effects on children may be considerable; "the older children, when still very young (7 to 10), act as heads of household and are responsible for the housework and for looking after the younger children" (Yanez and Martinic, 1979, p.11).

We have already noted how, in the process of socialisation, the sexual division of labour within the family is reproduced in the activities of children of different sexes. The boys tend to enter the labour market or "help" their father, thus taking over or supplementing his economic function. The daughters have to do the housework that their mother can no longer do when she goes out to work. In this case the mother has to supplement or take the place of the father in his economic role as head of household, and the daughters take over the mother's domestic duties, at least whilst she is away from home. Studies of this situation show that "adolescent girls have to do the cleaning and look after their elder brothers, as well as

studying if they go to school" (Whelan et al., 1977, pp. 46-48, 50-53). The child's study and recreation needs are subordinated to the housework the nuclear family requires to subsist. Given the socio-cultural characteristics of this class, the man feels frustrated and helpless at being unable to carry out his family responsibilities and loses his self-respect, so that serious tensions arise in the family. The man will not do the housework because it is "woman's work", so the daughters have to do it instead of the mother (Yanez, 1977, p.13).

2. The Entry of Children into the Productive System

Inquiry into the nature of child work must concentrate on two complementary aspects. The first is exactly how children relate to the productive system, with regard to the process of accumulation and the benefits of work. The second, to be reviewed in the light of the first, is the relation between work and socialisation, apprenticeship and the acquisition of skills. There must be due recognition of the qualitative differences between child work that complements the socialisation process and child work that prejudices future, and possibly better, employment prospects. Child "work" is often on the borderline between work and play, work and vagrancy, and work and apprenticeship.

(a) Child work and the process of accumulation

The relation of children to the process of accumulation differs according to whether their work is paid or unpaid. Productivity depends more on the kind of activity carried out than on the pay received, as unpaid child work shows signs of being more productive than paid work done by minors directly for the market.

Apprenticeship is a second highly important element; it may contribute to children's socialisation and acquisition of technical skills, but when it is simply a device to obtain cheap labour "apprenticeship" hinders future development. This element highlights the specific kind of exploitation inherent in child work which is additional to the direct exploitation also experienced by adults entering the productive system in similar fashion.

(b) Characteristics of paid child work

Paid child work is characterised by the marginal quality of the tasks which are unproductive, and ill paid, and can be done without any formal skills whatsoever. Their variety is a feature of the underemployment prevailing in labour markets in most countries in this region. In general, children tend to enter the informal urban sector of the labour market and to do

work classifiable as "certain sheltered or survival jobs characteristic of these marginal sectors, such as self-employment, domestic services and unpaid family work".[3]

One of the most important factors concerning the entry of children into the urban labour market is current legislation forbidding children under 14 years old from entering into a contract of wage employment. However, there is no effective restriction on self-employment. The only potential restriction is compulsory school attendance, but as this is not enforced it is little observed.

Prohibited work is different. The illegality and highly anti-social character of such work as theft or prostitution is such that child involvement in it is likely to exclude them from any lawful work when they grow up. Such "work" is an apprenticeship for delinquency.

Children who work are not generally able to attend school and the work itself gives them no opportunity to acquire the skills which may later on help in retaining a job in the formal sector. Child work is therefore a major barrier to subsequent entry into the formal sector.

(c) Characteristics of unpaid child work

In so far as children are unpaid family workers or engaged in housework they learn skills directly from their family. Children derive no direct profit from such work, but do benefit from the income received by the adult. Exploitation may be less evident when children work for their parents, but as part of a family labour force they are exploited in the same way as the rest of the labour force. The difference between children and adults is that the dependence of the former on familial authority, and their general status in relation to labour legislation, prevent them from personally receiving the benefit of their work. This is an important feature of child work.

When children help their family they may aggravate its exploitation if the wage of the head of household has to cover production and reproduction of the family workforce. This points to the need to study the various forms of over-exploitation to which the adult, and thereby the child, are subject.

Where societies are going through a process of accelerated social change, the virtual exclusion of some children from the education system means that the only jobs open to them will be in the activity they learn from an adult, and that they will probably not be adequately prepared for the new requirements of the productive system. This applies both to family work and domestic work.

IV. A Review and Classification of Children's Economic Activities[4]

1. The Concept of Work

Traditionally, work has been considered as gainful activity for the production of goods or services. This definition covers the actual production of an object of material or cultural value and also non-productive activity, including performance of the most trifling service, in exchange for payment.

This definition has been specially useful where, as in Chile, the productive structure is so heterogeneous as to lead to the existence of a differentiated labour market, in which workers' productivity in the informal sector is low and their activities marginal.[5] In studying child work this characteristic of labour markets is important - at least in the countries of the region - as there are numerous signs that children's work mainly takes place in the informal sector. The scanty data available show that the fathers of these children are also mainly in that sector (de la Luz Silva, 1978, p.26).

However, there is another range of activities which, though strictly speaking productive, are not remunerated because they take place within the family, which functions as a single economic unit. These activities can be classified under two main headings: (i) those carried out by children for the market (for which they are not paid, but for which the legally employed member of the family is paid) or those performed in small family undertakings; and (ii) unpaid housework which is not conventionally regarded as work either for statistical purposes or by those who perform it.

To include all these types of economic activity, the traditional concept of work should be adjusted and redefined tentatively and broadly as any socially useful remunerable activity requiring manual and/or intellectual effort and conscious purposive action, i.e. the production of a good or performance of a service.

A definition of this kind, requiring that the activity must be socially useful but also taking into consideration that, whilst remunerable, it may not be remunerated, covers various kinds of child activities which, though unpaid, are essentially "work".

This approach also solves other difficulties in the study of child work such as its relation to the family as an economic unit, and the responsibility of adults for maintaining their children. As parents' circumstances affect children's survival, the various forms of child work are directly related to their parents' position in the productive structure, and to the parents' ability to meet their family obligations.

With this definition of work, the activities of children can be classified into three categories. First, there are activities traditionally defined as "work" which can be divided into

conventional and unconventional work. Secondly, there are unpaid conventional and unconventional work activities. Finally, there are those activities which are not normally considered as being "socially useful", such as begging.

(a) Conventional paid work

Such work is defined and measured by conventional criteria and is often applied to adult labour force participation. Experience has shown that the statistical measurements of economic activity to be found in censuses are inappropriate to the study of work undertaken by children under 15 years old (de la Luz Silva, 1978, p.2).

As economic activity is recorded only from the age at which a person may legally enter into a contract of employment, the extent of child work is underestimated. This underestimation is compounded, in Chile, by the lack of legislation expressly prohibiting children's economic activity. Chilean data for 1970[6] recorded the economic activity of people of 12 years old and over, which was then the minimum legal working age. However, empirical evidence shows that in 1978, children aged 9 or 10 were working in Chile (de la Luz Silva, 1978, p.16).

Since the minimum legal age of wage employment has been raised to 14, subsequent estimates will exclude children under that age. This makes it impossible to identify clearly trends in the extent of child work. This is regrettable as studies show that unemployment, drop-out from school, and other variables affecting the participation of children rose towards the end of the decade.

The illegality of much child work also affects the validity of statistics. Institutional supervision is neutralised and official information on infringement of the law is lacking because of complicity between the child, parents and employer in concealing its existence. The relevant legislation contains few penalties and scarcely affects the hiring of child workers.

A third factor is that children's activities are only vaguely defined. Thus it is not possible to specify the sector or occupational group of one-third of Chilean children between the ages of 12 and 14 who were registered as economically active in the 1970 census. A breakdown by branch of economic activity shows that 32 per cent of that age group was classified as being engaged in "unspecified" activities. A check by geographical area shows that the proportion in the unspecified category was slightly higher in urban than in rural areas. Introducing the sex variable, the tendency was greater among boys, but no less than 61 per cent of the girls were in the services category (see tables 8 and 9).

Of those working children who were classified by branch of activity, in rural areas there was a high concentration (64

Table 8: Economically active population, aged 12-14 years, in urban and rural areas, by sex and type of activity (1970)
(%) distribution

Sector of activity	Male			Female		
	Urban	Rural	Total	Urban	Rural	Total
Agriculture	9.9	64.2	39.2	1.6	28.2	8.0
Mining	1.0	1.0	1.0	0.1	0.1	0.1
Manufacturing	10.9	2.0	6.1	7.2	4.1	6.4
Electricity, gas	0.1	0.0	0.0	0.0	-	0.0
Construction	4.1	0.5	2.2	0.2	0.1	0.1
Commerce	20.6	0.8	9.9	6.6	1.2	5.3
Transport	3.3	0.3	1.7	0.3	0.3	0.3
Finance	0.3	0.0	0.2	0.1	-	0.1
Services	10.4	1.5	5.6	61.0	28.0	53.1
Unspecified	39.3	29.7	34.1	22.9	38.2	26.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Chile, INE: Población. Resultados definitivos del Censo de Población, 1970, total país (Santiago, INE).

Table 9: Economically active population, aged 12-14 years in urban and rural areas, by principal occupational categories (% distribution)

Occupational category	Urban	Rural	Total
Professional	0.3	0.2	0.3
Managerial	0.1	0.0	0.1
Clerical	1.0	0.0	0.5
Sales	9.8	0.4	5.5
Agricultural	7.0	58.8	30.7
Transport	1.6	0.2	0.9
Craft workers	7.3	1.8	4.8
Other artisans	3.2	1.5	2.4
Daily labourers	6.7	0.7	4.0
Personal services	28.6	5.3	18.0
Other	34.4	31.1	32.9
Total	100.0	100.0	100.0

Source: INE, op. cit.

per cent) of boys in agriculture, whereas in urban areas children worked mainly in commerce (21 per cent), manufacturing (11 per cent), and services (10 per cent). But such classifications are ambiguous. Thus some child work - retailing sweets in streets and public transport vehicles, newspaper selling, etc. - can be classified under commerce, but other jobs, such as waste collection or guarding parked cars, are hard to assign as they often border on vagrancy.

A fourth factor in the measurement of conventional child work is the intermittent and unstable character of children's participation in the labour market. Some children work only on a few days of the week, others - mainly for reasons outside their control - only intermittently. Review of past trends suggests that the market offers children very limited opportunities, or rather that vacancies in a market saturated by unemployed adults are few, difficult of access and of a very special kind. This reduces children's participation and also their incomes. The intermittent character of child work calls for further investigation, as it may be due to the necessity of fitting in with education requirements.

(b) Unconventional paid work

Although activities such as child prostitution do not figure in official statistics - because child "work" is illegal and because such activity is "deviant conduct" - the "oldest profession in the world" is clearly paid work. Being illegal, prostitution cannot easily be recorded by the usual means of collecting primary data, such as surveys and interviews; but its frequency among the lower classes, especially in urban marginal areas, shows its importance. To obtain some data on the subject, the case of three child prostitutes was studied.[7]

The girl prostitutes worked on the outskirts of an industrial centre at nightfall, but not later than ten o'clock. They were friends, and contacting them and winning their confidence was an extremely slow business. Apparently they worked in a group, the eldest appearing to be the leader.

The place of work was some distance from the neighbourhood in which they lived, which enabled them to conceal their activities from their acquaintances, although the family's attitude in two of the three cases suggested complicity.[8] The parents knew the girls were receiving money, without knowing its source. Their earnings were partly for their family and partly for themselves. The girls spent their part of the money mainly on make-up and clothes, and although the sums spent were small the purchases were an impossible luxury for the rest of the family. Knowing they could earn more than the rest of their family made them self-assured towards it, and since that knowledge was to some extent shared by others the girls enjoyed a certain status and respect. The girl whose family did not approve of her activity kept all her earnings but had difficult relations with her parents.

The girls' attitude towards the woman interviewer was one of pride and satisfaction, and their basic motive was clearly to find a way of rising above abject poverty, as their living conditions were, at least in two of the three cases, extremely difficult. Illustrating their motives, one girl remarked, "I can make ends meet, buy make-up and dress decently, and nobody takes me for a beggar."

The girls' life histories showed that promiscuity was part of their daily lives, suggesting that using their bodies as a means of gain set up no mental conflict for them. They did not feel guilty but had a sense of self-respect. They knew they were breaking the law and hid from anyone who could prevent them from carrying on their work. Their attitude to sex was one of expediency. Indeed, the promiscuity and violence in which they lived obliged them to have sexual relations with their father and (in one case) brothers; they were not aware that they had the right to report it. In general their attitude to sexual aggression was passive and fatalistic.

Such activities in some respects resemble other paid work done by children, but the work has the added characteristics of being illegal and harmful to health. The girls practised prostitution fairly regularly, but in a short period of observation it is hard to say how long they would continue. They stated that they would continue until they married, and if they did not marry, probably for as long as they were young, like many other young women who became prostitutes while still girls.

The socio-economic position of the girls' families was similar to that of children doing paid work in the labour market, with the difference that the three girls were drop-outs from the compulsory education system. Another observable difference was in earnings, the girls' being relatively high.

This kind of child work is difficult to quantify and calls for the use of methods that are effective in gleaning concealed information and usually needing long periods of in-depth observation. As prostitution is very harmful to health at such an early age, the consequences in later life of child prostitution should be carefully investigated.

(c) Conventional unpaid work

As many types of work are non-remunerable for reasons originating in the worker's (i.e. the child's) physical or legal incapacity, and their subjection to parental authority, any benefit is indirect. In some cases that is because working children contribute to their own maintenance. Secondly, child work may increase family wealth; only later would the child receive the benefit directly, when the wealth is inherited or donated. Finally, there are the children who work for the sole benefit of adults, the "benefit" of their work consisting of no more than avoiding the chastisement to which their relative physical weakness exposes them.

One of the main categories of worker in occupational statistics is that of unpaid family workers. Generally they form a secondary labour force (women, and in this case children) working for a member of their family or a small family business. There are several variants of this formula; the person receiving the direct benefit of the family's work may be the owner, a self-employed worker, or a wage employee.

Work for owner-relatives is usually in small undertakings of very low profitability, in which payment of wages to outsiders would deplete the income which ultimately goes to maintain the family, or would preclude accumulation by preventing income from exceeding expenditure. Hence family work is a means of retaining in the family that product which would be lost by paying wages.

As an example of this kind of child work, let us take the case of a group of smallholders in the VIIth Region of Chile (de la Luz Silva, 1978, p. 5). Of 51 families surveyed, 26 had

children regularly doing agricultural work. Nearly all the children worked in the seasonal activities of gathering, clearing ground, etc., and also sporadically on non-seasonal tasks. In these cases the children were also in school until the end of their basic education.

This behaviour suggests that parents used their children's work only when it did not interfere with the children's education; but other evidence shows that, if their help is urgently required, children will cease going to school and if possible, will get a job outside the family environment. In other words, the determining factor in the children's education seems to be their family's socio-economic position, rather than the parents' wish to send the children to school.

Commercial concerns are often small family undertakings in which children are frequently unpaid workers. Among small shopkeepers whose shop is in their dwelling, the children help as unpaid workers by serving customers, cleaning and tidying, etc.

Children of self-employed workers or wage employees work as assistants to their parents. The product of the child's work is added to that of the parents, the adult being the direct beneficiary of the higher price or wage obtained. Thus children work as gardeners, retailers (itinerant hawkers, stallholders, etc.), or artisans (shoe repairers, bricklayers, etc.), helping their father without payment. It is also common for agricultural workers to bring their whole family to do seasonal work such as gathering grapes, fruit picking, harvesting vegetables and clearing the ground, and children under the age of 8 often help their fathers in such work.

This kind of activity may be directly measured and quantified but there are some difficulties. Aside from problems caused by the seasonal character of many activities, adults' description of the work may also lead to confusion; they may conceal children's work, or avoid describing their children as workers because their children do not receive direct payment. By calling the aid given by their children an apprenticeship, or play, or justifying it on the grounds that they cannot leave the children at home alone for instance, they avoid any precise definition of their children's activities and any evaluation of them.

Regular statistical information probably underestimates the extent of unpaid work by children, as the problems posed by the age limits for measurement of the economic activity of the population particularly affect this group.

(d) Unconventional unpaid work

Unconventional unpaid work covers all productive activities not performed for the labour market (and, largely for this reason, not conventionally considered as work) which, although

remunerable, are not a source of income; its most important form is domestic work. Recent limited recognition of this does not extend to all of society.

Such work is socially necessary and is an essential service in the production and reproduction of the society's labour force. When domestic work is done for the market it takes on the conventional form of an economic activity, because of the relation between the person performing the work and the person paying for it, and not because of the nature of the work.

The convention arises because domestic work has no commercial value as it is usually done "voluntarily" and free of charge by women for their own family as part of a mother's duties, and is not a "good" bought and sold on the market. When women, socialised from an early age to do domestic work, are forced to enter the labour market without formal skills, they tend to do related work.

Domestic work is particularly relevant to child work, for children, especially girls, often "help" their mothers; but in effect they do so as part of the process of socialisation, which is an apprenticeship to the traditional and unpaid role of women.

It is thus hard to say at what point housework ceases to be an apprenticeship and becomes work. One reasonable criterion is the mother's role. When she has to work outside the home to earn a living and her minor daughters take over the housework, they obviously assume the domestic responsibilities which would normally be hers; the housework they do ceases, in that case, to be an apprenticeship and becomes work.[9]

Cases of unpaid domestic work are also found where there is no family connection between the children and the people with whom they live, even when the relation is formally a family one. An illustration of this is the case of a girl who was given a home by a woman teacher. The teacher gave the child board, lodging and clothing and, most importantly, access to centres of formal education, in exchange for housework which the teacher herself could not do because she was physically handicapped (de la Luz Silva, 1976, p. 28). This type of arrangement is common among children of peasant families and is an example of the search, encouraged by parents, for improved employment prospects, and of parents' willingness to pass on the responsibility for feeding and maintaining their children to somebody else.

Another type of case is that of an abandoned child living with a family to whom he was not related. The child's relation to the head of the household was that of son to father, and to that man's children, that of brother. But unlike the other children, he had to help in the home and on the farm, doing such work as feeding the poultry and pigs, saddling the horses, and drawing water. He lived there because of his mother's history. He was the illegitimate child of an unknown

father, and his mother lived for a time with the farmer; after the mother "cleared out" and deserted the child he became one of the family later founded by the farmer. His "brothers" treated him with affection, and he showed similar affection for them and his "father".

Variants of this kind of child work have a common characteristic, that is, the lack of parents to look after the child. The child becomes a member of another family but is not regarded as one by the adoptive family, so that in effect a commercial relationship is established. Not being a blood relation, the child is not entitled to board, lodging, clothing and other life supports, and must pay for maintenance by doing domestic chores.

Examination of unconventional economic activities suggests a tendency for them to take place when there are links deriving from primary relations such as a blood relationship. However, the existence, frequency and scale of unconventional economic activities are hard to measure because of their special features.

(e) Subsistence activities

Finally, there is a kind of activity found among the least privileged members of society, those who cannot do paid work of any kind. This is open begging. It is often hard to draw the line between some children's activities in the informal sector and begging, because such activities are extremely marginal and could be concealed begging. All we want to do at this point is to urge investigation of the nature of begging by children, as, like petty theft of food, it generally appears to be done for subsistence reasons, giving it a unique character that remains to be examined.

Begging by children, who have no social responsibility for their own maintenance and education but who are forced to help to maintain themselves, is ultimately a productive activity in that they are taking part in their own physical production as members of a future labour force.

Especially when the beggars are small children, they are clearly using one of the few means in their power to get money, that is, their status as children. Using their age and obvious vulnerability, and demonstrating their precarious circumstances, they provoke psychological reactions of pity. When five child beggars were interviewed, it was noted that their family circumstances were abnormal, as in various other cases of children carrying out marginal activities. In all cases part of the children's income was kept for themselves, with the rest being given to their family, and all had their mother's co-operation or passive consent, even when they did not recognise any adult compulsion.

The most compelling reason given by the children for begging was that they would starve otherwise, but the

interviewer's chance experience shed a significant light on this. A girl aged 10 or 11 came up to his car to beg, saying pathetically that she had had nothing to eat since the day before. The interviewer gave her money and waited to see what she did next. Without even taking the trouble of making sure he had gone, she crossed the road, passed by a baker's and went on to a shop selling toys. Obviously she was not hungry but she thought - correctly - that she would not be able to beg money by saying she wanted to buy herself a toy.

This chance experience gives a glimpse of difficulties not easily detected when interviewing. Methods of collecting information must make due allowance for this kind of reaction by the persons interviewed. It suggests that begging is sometimes a job undertaken for gain, that it needs a specialised technique and, though initially a practical way out of real difficulty, is sometimes continued as a regular activity that can be practised whenever circumstances permit.

V. Concluding Remarks

That children should have to earn a living or look after their physical well-being in whole or in part has potentially damaging consequences. This is particularly true when they work as paid workers, as then they are removed from the authority of their parents who lose face to their children by failing to carry out their parental role. It is difficult for adults to maintain control when the child's liberty is conditioned largely by his or her surroundings. The child no longer has to observe the restrictions associated with an ordered life subject to parental authority, normal educational routine, and recreation protected and directed by adults.

The independence of working children easily induces habits which, though they may be practised initially for economic reasons, may easily become aggressive, hostile and delinquent, such as drug addiction, alcoholism, sexual perversion, and robbery with violence. This is particularly important, as paid child work is generally done in very poor sectors or neighbourhoods in which crime as well as delinquency is common.

Child work can be highly dangerous to the child's physical development. A child working in the street and using public transport to look for customers, or selling newspapers in traffic, or having to shift furniture, cook or clean, is doing work which is very often beyond his or her strength.

Mental development is also affected; the mere fact that working conditions are bad gives children an image of the world and human relations in which solidarity and love are almost unknown. Affection is something not easily understood, and if it exists comes from some private protector; but in general child workers live in a world in which survival is difficult, and those who come out relatively well are the most cunning or most

able to strike fear into would-be competitors.

Child work being illegal, child employees cannot form organisations to protect their interests, and child apprentices in Chile are forbidden to organise or belong to trade unions. For children working in the informal sector or doing unpaid work, the nature of the work makes organisation practically impossible. Work is intermittent, the law requires them to attend primary school, and the underlying assumption is that as minors do not work they have no need to organise themselves. The final irony is that the most vulnerable group of workers has the least opportunity to protect their interests.

Notes

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1 Minors aged 15 and adults aged 14 form a category for which there are special provisions; they must have finished their compulsory basic education and may do only light work which does not prejudice their health and development or interfere with their participation in educational or training programmes. See: Legislative Decree 2,200 of 15 June 1978.

2 Ibid.

3 PREALC: Bases para una política de empleo hacia el sector informal o marginal urbano (Mexico City, 1975), p. 14.

4 The following is based in part on statistical, legal and primary information analysed elsewhere; see de la Luz Silva (1978). Additional information consisting of interviews with children doing illegal or semi-legal work is also included.

5 The informal market sector covers all activities with low productivity, self-employed workers (except in the professions) and very small and unorganised enterprises. In practice, the demand for labour does not follow a technical definition of available jobs; in this market the level of employment, i.e. the number of persons occupied, depends on the size of the labour force not absorbed by the formal sector of the economy, and on the opportunities these persons have of producing or selling something which brings them a small income. For further

information see Judith Villavicencio: Sector informal y población marginal (Santiago, PREALC, 1976).

[6] Dirección de Estadísticas y Censos: XIIIth Population Census (Santiago, INE, 1970).

[7] The following is derived from a study of 11 cases carried out by the present writer to supplement the previous study (de la Luz Silva, 1978) with data on unconventional kinds of child work. Information was gathered on three girl prostitutes, five beggar boys and four children living in isolated rural areas (two "attached" to a family to which they were not related by blood and two legitimate sons of average peasant families).

[8] Among the unemployed too there is some complicity in the prostitution of wives and daughters, as the result of extreme poverty. For further information see Patricio (1977), p. 128.

[9] For further information see de la Luz Silva (1976); also Whelan et al. (1977). For qualitative information on family life collected during interviews of 126 urban lower-class family groups, see Yanez and Martinic (1979).

Chapter 7

The Economic Roles of Children in India: Methodological Issues

by Leela Dube*

I. Introduction

In relation to societies of the Third World the phenomenon of child labour needs to be viewed and assessed in a fresh perspective. A view is gradually gaining ground that, rather than being shocked and scandalised by the employment of children in work for wages, we need to understand the nature, extent and kinds of work in which they are engaged in different parts of the world. No useful purpose is served either by condemning poverty or by invoking the need for schooling for all children within a certain age group; it is necessary instead to review the place of children in the society and to look into the culturally conceived obligations towards and expectations from them. The notion that any kind of work that does not constitute either play or education, in the strict sense of the terms, is always an unjust imposition on children and that this labour dispossesses them of their childhood needs to be re-examined.

India has the largest number of the world's working children. According to the 1971 census, 4.66 per cent of the total child population in India were working. Table 10 gives the distribution of workers in the 5-14 age group in various sectors of economic activity. The figures in table 10 are undoubtedly a gross underestimation of the reality. Estimates from the data obtained in the twenty-seventh round of the National Sample Survey put the number of child workers at 15.1 million (Seal, 1979). The age-specific labour force participation rates derived from the data obtained in the sixteenth and twenty-seventh rounds of the National Sample Survey are shown in table 11.

Any survey of the extent of child labour in India has to recognise that the information is widely scattered. Some government reports have provided some material, other data can be found in records and surveys, in the empirical studies of sample populations of child workers in particular localities and/or industries and occupations, in analyses of secondary data by social researchers, in newspaper reports, and in popular and other articles.

Table 10: Percentage distribution of total boy and girl workers in age group 5-14 among the various sectors of activity, 1971

Activity	Rural		Urban	
	Boys	Girls	Boys	Girls
Total workers	100.0	100.0	100.0	100.0
Primary Sector				
1. Cultivation	42.41	27.58	6.46	3.32
2. Agricultural labour	40.24	57.50	12.41	22.37
3. Livestock, forestry, fishing, plantation, etc.	9.84	5.14	4.45	2.43
Secondary Sector				
4. Mining and quarrying	0.17	0.28	0.40	0.81
5. Manufacturing, processing, servicing and repairing:				
a) Household industry	2.07	4.06	8.02	17.96
b) Other than household industry	1.27	1.80	24.37	15.50
6. Construction	0.34	0.42	2.94	3.69
Tertiary Sector				
7. Trade and commerce	1.01	0.33	20.40	3.01
8. Transport, storage and communication	0.14	0.09	4.13	2.09
9. Services	2.51	2.80	16.42	28.82

Source: A. Mitra (1978).

Table 11: Age-specific labour force participation rates: 1960/61 and 1972/73

Sex	Age	Participation rate			
		Rural India		Urban India	
		16th round[1] July '60 to June '61	27th round[2] Oct. '72 to Sep. '73	16th round[1] July '60 to June '61	27th round[2] Oct. '72 to Sep. '73
1	2	3	4	5	6
Male	5-9	3.28	2.57	0.52	0.84
	10-14	32.73	26.33	11.69	10.16
Female	5-9	2.40	1.94	0.73	0.38
	10-14	22.97	19.97	6.79	5.83

[1] A person was considered as being employed if he/she had worked for pay or profit on at least one day during the reference week on some economic activity.

[2] A person was considered as employed if he/she had pursued some gainful work for at least one hour or one day during the seven days preceding the date of enumeration.

Source: Seal (1979).

A recent survey report (Gangrade, 1979) provides basic information on the incidence and distribution of child labour in India, the occupations in which they are found, their conditions of work, and reasons for their joining the labour force. Excellent as is the report, it brings home a realisation that our knowledge of working children in India is scanty.

Census data and other kinds of survey data have been used for a sociological understanding of the phenomenon of working children (see, for instance, Jain and Chand, 1979; Khandekar and Naik, 1972; Mitra, 1978; Premi, 1973; Seal, 1979; Zachariah and Sebastian, 1966). It would be possible to make more use of data from the decennial Censuses, National Sample Surveys, Rural Labour Inquiry, Labour Bureau reports and also of other official statistics of education, delinquency, etc. It is, however, necessary to take a critical look at the lacunae in these data in order to improve the recording of children's work.

So far the attention given to the question of child labour in India has been somewhat perfunctory; much of the work on this subject, which borders on social inquiry and social work, is characterised by over-simplification and catch-all explanations and solutions which can be attributed, at least partially, to the presence of some underlying, inappropriate assumptions regarding childhoold and its correlates. Value judgements and evaluative standards rooted in and deriving from Western experience cannot always be meaningfully superimposed on the social realities of the developing countries.

As an example of a distorted view of childrén's participation in productive activities and in the general economy of India, consider the following statement in the Indian Government Labour Bureau's Report on Child Labour (1954):

> In spite of protective legislation the social evil of child labour persisted in India from the early days of the industrial system. The evil still persists in the many unorganised sectors of industry and in agriculture. (p. 2)

One need hardly emphasise that it is totally misleading to associate child labour in India only with industrial development. It is true that the establishment of certain kinds of industry, the reorganisation of many cottage industries and crafts on non-familial and commercial bases, and capitalisation of agriculture, have expanded the scope for exploitation of child labour. This does not mean, however, that the involvement of children in economic activities is a recent phenomenon in India, where around 80 per cent of the population live in villages under exploitative land relations; large numbers of people exist at the subsistence and below-subsistence level; particular crafts

are traditionally pursued by specific caste and ethnic groups; there is large-scale use of labour-intensive technology; means of communication and living conditions are often primitive.

Here is another vehement condemnation of child labour:

> Child labour is economically unsound, psychologically disastrous and physically as well as morally dangerous and harmful. It involves the use of labour at its point of lowest productivity and is, therefore, an inefficient utilisation of labour power. Child labour precludes the full unfoldment of child's potentialities. It deprives him of education, training and skills which are the necessary prerequisites of earning power and economic development. Children are the most vulnerable group in any population and in the need of the greatest social care. On account of their vulnerability and dependence, they can be exploited, ill treated and directed into undesirable channels by unscrupulous elements in the community. The State has the duty of according proper care and protection to children at all times as it is on their physical and mental well-being that the future of the nation depends. However, in view of our contemporary economic situation, the total eradication of child labour through legislation does not seem to be an immediate possibility. The only pragmatic alternative, therefore, is the dissipation of undesirable conditions and practices attendant to it. (India, National Institute of Public Co-operation and Child Development, 1977, pp. 1-2).

These examples highlight the need for a better understanding of the Indian social reality, fewer generalisations, greater conceptual clarity, and methodological refinement.

This paper begins by briefly looking at the child and work as they are depicted in Hindu tradition and sacred literature, and then goes on to examine cultural notions regarding the stages of human life placing childhood and the child in a certain perspective. Together, these suggest a way of understanding the possible roots of people's attitudes and views. Further, the contemporary patterns and extent of child labour are surveyed in a few sectors to assess its place in the family and the economy. Simultaneously, there is an attempt to assess the available sources of data in the cultural heritage and in the social science literature that could be used for developing a proper understanding of child work. Finally, some conceptual and definitional problems are raised along with some suggestions concerning approaches and methods that would be useful in studies of child labour.

II. The Child in Traditional Indian Culture

The mythology, legends and classical literature of India deal more with gods and kings than with the common people. As such, few specific references to the work roles of children from the lower strata, or even average groups in society, can be easily traced. Significant inferences can be drawn, however, from general descriptions and particular episodes featuring in this literature. For example, the epics tell us that education was invariably imparted by a sage in his hermitage, traditional schools being built around venerable men of learning. Their rigorous codes applied equally to children of royal lineages and the sons of commoner families. The legendary Rama, a human incarnation of Vishnu of the Hindu Trinity and his brothers were sent by their father, the ruler of the kingdom of Ayodhya, to the ashrama (hermitage) of sage Vashishta, and accepted its discipline. Like all others they participated in the domestic chores of the Guru's household as well as of the ashrama, helping out in economic pursuits that sustained the latter, in addition to keeping up with a demanding learning schedule. Such schools did not charge fees but the students were expected to contribute their labour towards the running and upkeep of the institution.

Krishna - a latter incarnation of Vishnu and the principal hero of Mahabharata, another epic - though born of royal parents, had to be removed from them and the palace immediately because of the wrath of his maternal uncle who was determined to kill him. His childhood was spent in humbler surroundings, in the household of a minor chieftain of cowherds. There are graphic descriptions of how, at the age of 6, Krishna was launched by his foster-parents into the job of a cowherd and how, like all other boys of his age, and in their company, he went out to graze cattle in the pastures in the vicinity of the village. He was fun-loving and mischievous, but there are no instances suggesting that he ever tended to shy away from work assigned to him or of his being negligent in discharging the responsibility given to him.

Nowhere does one find any mention of the desirability of, or insistence on, restricting childhood only to play and education, separating it from productive work. Among agriculturists, who then as now formed the largest part of the country's population, the children had specific tasks. Keeping watch on the crops and frightening away birds and beasts coming to feed on them was their main responsibility. Older children are shown as helping out in looking after younger children. For the children of artisans and craftsmen, education in their craft or skill started early, their families and guilds imparting to them the necessary training. From their early 'teens craftsmen's children started contributing substantially to the economic endeavours of the family and the

community, and in general children participated in such tasks as gathering wild fruits, tubers, herbs and vegetables, shallow water fishing and, a little later, hunting.

Thus, we find children being entrusted with work that was time-consuming but not arduous. This kept them occupied and allowed the elders to pursue activities involving heavier labour and more complex skills. Children could combine recreation with the limited work roles assigned to them; in fact much of their work was looked upon as full of fun and play, and it is significant that work was never disassociated from play and education. From their early years children started learning to be, and then functioning as, participants in and productive members of the family and the community.

As children's activities were enmeshed with the activities of adults, it goes without saying that the constraints, limitations and deprivations of a particular group characterised the life of its children also. References to slavery, domestic service, and master-servant relationship in literature, particularly Buddhist literature, unmistakably point towards the presence of children toiling as slaves and servants at the mercy of their masters. Much more light could perhaps be thrown on the place of children among the lowly groups if we made a serious effort to delve into the relevant literature. In the mediaeval period also, both Hindu and Muslim affluence was characterised by the use of children as personal servants, often working as helpers and apprentices to the adults.

III. Life Stages in Indian Tradition

The notion of the division of the normal human life span into stages or phases according to age is a part of the Indian tradition. The four principal stages of life - the celibate, the householder, the anchorite, and the ascetic - are well known. These stages have been identified in other ways also. A work on the traditional system of medicine says: "There are three ages, namely, childhood, middle age, and old age. He who is less than 16 years is to be recognised as bala, i.e. a child. The same text adds that childhood also has three divisions - one during which a child consumes only milk (i.e. a suckling baby), a second during which the child consumes both milk and cereals, and a third during which the child lives (essentially) on cereals (Bhavaprakash, Ayurvedagrantha). It should be pointed out, however, that these stages are not identical in different authoritative works; even the substages of childhood mentioned in the same work may overlap. But there is no doubt that each term used for these substages denotes a certain number of years and is broadly associated with degrees of maturity and the development of abilities. Also, different terms are meant to be used in different contexts (see annex to this chapter).

More commonly the human life-span is divided into childhood, youth, adulthood, and old age. It may also be divided into childhood (balyavastha), youth (yuvavastha), middle age (praudhavastha), and old age (vriddhavastha). Age as well as certain rites of passage are used as the criteria for identifying a person with a particular stage of life and not the exact calculation of years, months and days. In point of fact this is not even possible. While astrological prediction about one's future hinges on the exact moment of birth, only a few in the upper castes and classes are in a position to provide such information. For others, the recording of date and time of birth may be necessary for the preparation of a horoscope but its relevance for calculating how much time has elapsed since birth is not realised. Details of age are thus not retained for ready use, particularly in rural areas. The indifference of the common people towards proper reporting of births combines with negligence by petty officials and village Panchayat functionaries in performing their duty of recording births and deaths in a village. Information needed for civic purposes is thus hard to come by. Needless to say, specific measures against child marriage, child labour, immoral trafficking in young girls, and so on, are confronted with woefully inadequate and inaccurate information about age. Fortunately, with a few literate persons in the community, the situation is improving.

In any broad classification of the stages of life or age groups, childhood in India is understood to cover the period up to 16 years. Girls, however, are believed to attain maturity earlier. According to Arthashastra, for instance, a boy becomes major at the age of 16 while a girl becomes major at the age of 12. Attainment of puberty confers maturity on a girl. In common parlance the expression for menarche is "becoming mature". There is also a difference between boys and girls in respect of proper age for marriage. For girls the time between the onset of puberty and marriage is viewed as some sort of a liminal period during which the girl needs special protection. This is the period when she is capable of becoming, but must not become, a mother.

It is a common experience in Indian villages that in the first two or three years of life a child is indulged by all. It is also a period during which the mother is able to give the child considerable attention, which is gradually withdrawn when the next pregnancy starts. An infant or small child (there are specific terms to distinguish between different periods of early childhood) should not be allowed to cry. Elders and neighbours consider it their duty to protect children from neglect and indifference. That these attitudes and reactions are informed by the prescriptions and advice contained in written traditions is indicated by the following verses from a treatise on health and medicine:

> One should not let a child cry unless it cannot be avoided such as when it has to be massaged and bathed or has to be administered medicine.
>
> "A child should be protected with special effort from the sun, lightning, rain, smoke, fire, wind and uneven ground.

There is considerable evidence in literature, ethico-legal codes and common conceptions to suggest that the age of 16 years provides a cut-off point between childhood and youth. The following verse from Bhagawata Purana, a tenth-century treatise, finds its echo in many regional languages: "A son should be doted on for the first five years, he should be disciplined for the next ten years, when he is 16 he should be treated like a friend" (stanza 114, Chapter 10). The same sentiments are expressed in a saying popular in North India: "Treat your son like a king till he is five, treat him like a slave for the next ten years, and begin treating him like a friend when he is 16." This also reflects the appropriate behaviour expected of a boy at different ages.

The following observations made in an Indian village suggest that the above advice is put into practice:

> As a rule infants are treated with affection. The mother nurses it whenever it starts crying indicating its desire to be fed. ... When it is 6 to 8 months old, elder sisters, female relations and male members of the household may start sharing this task with her by occasionally giving solid food to the child.
> ... On the whole, an infant is the cause of delight to the family, and it is often fondled and carried about by the elders.
> ... The situation radically changes after the child reaches the age of 5 or 6 years. Now the parents must be strong and should start disciplining it.[1]

Demarcation of life stages according to age in no way negates the idea of continuity. On the contrary, that idea is quite strong in the Indian consciousness. According to the traditional system of medicine and also the general folk conception, the prenatal period is important from the point of view of the development, both mental and physical, of the child. It is commonly believed that the mental and physical make-up of the child is influenced while it is still in the womb by what the mother eats and also by her thoughts, feelings and actions. The outside world impinges on the child in a number of ways, in the first stage through the mother.[2]

An important aspect of the notion of continuity in human personality is the importance of practice and training of the muscles, the sense organs and various parts of the body in performing certain activities. As mentioned earlier, it is believed that the learning process starts soon after conception. It is commonly recognised and emphasised that the human body is soft, flexible and pliable in childhood and can therefore learn with ease how to twist, bend, stretch or assume different postures as required by particular jobs. Co-ordination of limbs and balance of body, sense of timing and attuning of sense organs are relatively easier to learn at this stage. Skills are therefore best learned if learning is begun fairly early. It is not only a physical adjustment but also a mental adjustment that has to be achieved in learning skills.

Musicians start training their own children at the age of 5 or 6. Besides training the vocal chords, the sense organs need to be attuned and sensibilities need to be developed. It is commonly believed that an imprint acquired in childhood is not easily erased. An early start in music also helps a proper crystallisation of tastes and inclinations. For the same reason an early start is preferred for training in dancing.

Craftsmen and artisans hold similar ideas and so ensure that their children start acquiring skills early. The nimble fingers and keen eyesight of children are greatly valued. In hereditary crafts like carpet weaving, papier mâché, cotton and silk weaving with intricate designs, woodcarving, embroidery, etc., training starts at an early age. The need for a minimum of training and practice in a skill and the idea of "catch them young" both play their part in sustaining the pattern of early involvement of children in hereditary crafts. Small boys may be sent away as apprentices, some of them earning a little money, or they may be taught at home. Anandlakshmy noted that training in the community of weavers in Banaras, famous for its embroidered silk, begins when boys are between 7 and 14 years of age. In families where there are facilities or looms for absorbing the services of the young apprentice, the boy is taught the craft at home. However, some weavers still prefer to send their sons to another weaver for learning, believing that outsiders with no emotional ties can enforce stricter and better learning, through physical punishment if necessary (Anandlakshmy, 1970, pp. 47-48).

Training begins in a potter's household, the main production centre, as soon as children are capable of doing some light work.[3] Several distinct stages, which differ between boys and girls, have to be completed before the child is considered to have learned the craft. Children are sometimes sent to relatives in distant places for special training. And while learning the major tasks of the occupation the child worker learns of other, complementary skills.

Similar ideas regarding the greater receptivity of children and pliability of their bodies operate in cultivation, where children are involved in the work of production at a fairly early age. The argument that a cultivator's son who does not learn to handle the plough and other implements at the appropriate age would find it difficult to handle them later, has sufficient strength. This logic is also invoked in the case of domestic work. Once it is assumed by the parents that children are to live and function more or less in the same society as their own, it stands to reason that the tasks they have to perform should be learned at a proper age.

IV. Child Work Roles in Tribal Groups and Rural Areas

1. Tribal Groups

Although most ethnographic accounts of tribal groups, at different socio-economic levels and patterns of subsistence, have little to say about children and their work roles, a few studies do offer some information on the activity patterns of children, their gradual integration into the economy, and the division of work according to sex and age. An example is this account of children's activities amongst the Kamar, a tribe of shifting cultivators, hunters, and gatherers:

> When the boys grow up and attain the age of 7 or 8 years, they get their first wooden bow and arrows of the normal type, although in size considerably smaller than those used by the adults. This adds to the status of the children who now begin to make independent efforts at hunting rabbits, squirrels, and small birds. With a little practice many of them are very successful at it.[4]

By that time, as Dube notes, the children graze the domestic animals and begin to learn basket-making; a little later they join the adults in hunting expeditions. By the time they are about 14 years of age, the children are expected to be able to take care of themselves.

Among the Dhurwa of Bastar, when a boy reaches the age of 10 he is expected to know how to handle a (wooden) plough, reap the harvest, cut and bring the fuel from the forest - alone or in company - and sell and purchase articles in the market. Similarly, a girl of the same age is expected to be proficient in weeding paddy fields, harvesting, cooking meals, fetching water from the sources, taking care of her younger siblings, sweeping the house, and washing the verandah walls and courtyard of the house with cowdung.[5] It is obvious

that this description only lists the work that a 10-year-old boy or girl is usually expected to do. It does not indicate exactly at what age a child starts doing a particular task.

In his restudy of the socio-economic conditions of the Chodra, a tribe in Gujarat, Ghanashyam Shah has given figures of male and female workers in different age groups for a total population of 18,223. Unfortunately, he has used broad age categories and has not taken care to distinguish between children and adults. In the "below 10" age group as many as 25 per cent of the boys and 31 per cent of the girls were workers, while in the 11-17 age groups 65 per cent of the males and 75 per cent of the females were workers.[6] Use of broad categories (which miss the required distinctions) and lack of uniformity in the use of age categories (making comparisons difficult) are two of the principal limitations of quantitative data in general. In a study of income-earning trends and social status of a Harijan (scheduled caste) community in Tamil Nadu, it is reported that 14.2 per cent of those below 25 years of age were land-owning cultivators, and that in the same age group, 54.7 per cent were coolies (Vagiswari, 1972). It is impossible to get any idea about child workers contributing to these percentages, although the proportion of workers in the age groups below 25 gives an indication that there must be many child workers in the community.

Among the Kolgha of Gujarat, when boys are 6 years old they begin taking the cattle out for grazing, usually with other children. They also catch fish from water holes and pits, participate in foodgathering activities, and become wage labourers when still in their early 'teens.[7]

Among the Bhils of Western India, after a boy has completed his sixth year he begins harvesting crops and collecting Mohua flowers. When he grows a little older he is asked to tend the cattle in the woods and is expected to be self-supporting soon afterwards. Both boys and girls work on farms as paid labourers doing the weeding and harvesting. Sometimes the payment is in kind in the form of cloth and maize.[8]

The Jatapu are a tribe in Andhra Pradesh. Jatapu children, as a rule, are responsible for looking after the cattle, sheep and goats. When a boy is 6 years old, his father gets him one or two goats from the money-lender for grazing. The products are shared equally between the money-lender and the boy's father, the goat being returned to the owner after a certain time. Groups of children take the animals out and must wash them in the stream on their return in the evening. By the time a boy is 13 or 14, he also begins to take on agricultural work. Girls of 6 years old may be entrusted with all the household tasks such as cleaning the courtyard, getting water from the stream, and taking the animals for grazing if there are no boys in the house. A daughter helps the mother in all domestic tasks.[9]

Among the Bagatha and related tribes studied by Reddy (1971), children between 6 and 9 years of age accompany their parents to the field to help them in such activities as sowing, transplanting, weeding and harvesting, digging roots, collecting fruit, and scaring off birds. Division of labour by sex is sharpened in the 10-14 age group when girls attend to feminine tasks in the house, field and forest, take care of infants and guard the house, while boys go along with men to the fields and forests.

In her account of the Dimasa of Assam, Danda emphasises the sexual division of work among children. Girls of about 8 years old are seen accompanying their mothers to the market with small loads on their backs. They occasionally fetch drinking water and small bundles of firewood and are taught weaving at a tender age. By the age of 14 or 15, boys have learned most of the agricultural activities and sometimes they are assigned the work of honey collection.[10]

Furer-Haimendorf's description of the participation of children in the daily activities of the household among the Gonds of Andhra Pradesh gives a clear idea of the economic roles of children in this tribal community with sedentary cultivation:

> The first serious work of children is the guarding of crops against birds and monkeys. A field whose owner neglects the watching offers a sorry sight, and a husband and a wife find it practically impossible to guard the crops throughout the 24 hours, unless they are helped by their children.
>
> While boys and girls share in the work of guarding crops, it is the boys alone who are called upon to herd the cattle.
>
> Small boys ... help in collecting stubble and rubbish during the first spring ploughing and are later useful at harvest ... boys of 14 can be seen ploughing with the broad wakur, while the more difficult ploughing with the pointed plough (ser) is usually left to grown men.
>
> Girls begin helping in the household at a very early age. One can see tiny girls with small pots on their heads following their mothers or elder sisters to the well, and what at first is little but play, develops soon into a useful contribution to the volume of work which has to be done in every household.[11]

The foregoing descriptions provide us with some profiles of the participation of children in domestic and non-domestic activities of tribal household groups according to age. While the descriptions lack exactness and there are some differences in the age reported for particular activities - which may be authentic or could be subjective - there is considerable convergence in the way the scope of children's activities is progressively widened, in the kind of assistance they provide to the parents, and in the over-all role of children in the household economy. What is not explicit are the views of children and parents towards each other in regard to the former's contribution. Nor is there any quantification of data providing us with the exact age range at which particular activities are taken up or measurement of the time contributed by children in comparison with that of their parents in various kinds of activities.

2. Rural Areas

It must be emphasised that even the patterns given above are not generally revealed in other accounts of tribes; they are rare in the studies of villages or individual castes. It appears that Indian scholars were preoccupied with the complex phenomenon of caste, so that most studies, whether of economy, politics, or even of kinship and religion, have revolved around that subject, and in recent years to a limited extent around class. Even the demographic census data collected by the field worker have neglected details about children's participation in economic activities. Excepting some brief descriptions in a few village studies,[12] children do not figure at all. In many of the studies of particular caste groups or communities, children do not find a mention either because their participation in the economy was not very significant or because the focus of the scholar was different.

Children's roles and activity patterns in rural India, however, have not been completely neglected. They have found greater mention in some more recent anthropological, sociological and economic studies. Analyses of macro-level data for rural areas also provide information on the distribution of children in various occupational categories. Children figure prominently in studies dealing with the phenomenon of bonded labour, which will be discussed a little later. Programmes of community development and their evaluation, as well as educational planning and literacy programmes, have taken note of children's roles and preoccupations.

A study of the socialisation of Rajput children in a village in Western Uttar Pradesh by Minturn and Hitchcock (1963) refers briefly to their participation in economic activities. Anandlakshmy's sensitive study, mentioned earlier, of child development in two separate samples of agriculturalists - the well-to-do and the poor - and in two communities of craftsmen -

hand-block printers and silk weavers - presents patterns and processes of children's involvement in various productive activities (Anandlakshmy, 1978). Considerable quantitative data on children's activities were collected in this research project, but the report does not carry out any analyses of these data. Anandlakshmy's reporting remains essentially descriptive.

A few studies focussing on the role of women in the rural economy provide interesting data on children's participation. Thus, in a research project on women workers in the coir industry directed by Moilly Mathew, it was found that a large number of children were employed in coir making. Even school children were employed in coir making before and after school hours. In coir spinning, where the payment was on a piece-rate basis, there was a strong tendency to work long hours in order to earn as much as possible and involve children in work on a group basis.[13]

In a study of the impact of development on rural women in Western Uttar Pradesh by Jetley, as many as 83 out of 245 girls in the 6-11 age group (33.5 per cent) were reported to be engaged in economic activity and not attending school. Over 52 per cent (117 out of 222) girls in the age group 11-18 gave "being engaged in economic activity" as a reason for not attending school, but it is difficult to calculate how many of these belonged to the 11-14 age group.[14]

In field surveys in rural Rajasthan and rural West Bengal, designed to make a realistic assessment of women's participation in the household economy, Jain and Chand (1979, p. 2) found that children, especially from the lower-income groups, engaged in economic activity of various kinds almost with the same intensity as adults. Their findings on children were a by-product of their investigations regarding female work.

3. Implications of Findings from Tribal and Rural Studies

We may now take note of what emerges from studies of children's activity patterns in the various groups reviewed so far. Children form an integral part of the household economy; they receive training for work roles and gradually start making an individual contribution. Work is not viewed as being antithetical to childhood. There is, however, the notion of appropriate work for particular age groups and also of the appropriate time for learning particular skills and tasks. Learning is achieved mainly through observation, imitation and assistance to elders.

Children share the adult work environment and are observers and participants in it. In general, by between 12 and 14 years of age boys and girls have acquired the capability of doing most of the work that adults do. However, this does not mean that they are considered as adults. The lines of

authority and decision-making, deference structure, initiative in productive operations, extent of control over one's and one's family members' earnings or productive capacities, and marital status have much relevance in the attainment of adulthood and do not only depend on the ability to do an adult's work.

While such boys and girls develop a certain sense of efficacy and competence, it is precisely their non-adult status which makes them so vulnerable to exploitation. They may be used by parents as sureties for debts and are in demand for agricultural work on a yearly contract basis. Their output is more or less equal to that of adults but they are paid lower wages. Preference for child workers is most common in the unorganised sector because in such jobs it is relatively easy for employers to circumvent the laws prohibiting child labour. Children may be concealed from factory inspectors during the latter's visits. Sometimes children's ages are overstated to make them eligible for employment, and on others those who would qualify for adult wages are forced to accept that they are younger than their true age. The law has proved unable to deal with such practices.

V. Child Work in Industry

Khandekar has long been interested in analysing secondary data on children and youth. She has drawn attention to the fact that in urban areas migrant families and migrant individuals account for a high percentage of child labour (Khandekar, 1970). There are few empirical studies of working children in urban areas but they highlight the unhealthy conditions in which children work, the long hours and a general lack of education (see, for instance, Barooah, 1977; George, 1977; Musafir Singh, Kaura, and Khan, 1978). Children are employed in a variety of places and occupations, including domestic service, tea stalls and small eating establishments, metal workshops, motor vehicle workshops, cycle repair shops, printing presses, household industries, provision stores, and all kinds of small shops. They also work on their own, as shoe-shiners, stall keepers, hawkers, and so on. Contributing to the family income is the most important motivation for employment, although many children also work to support themselves.

Industries in small towns and semi-urban areas provide an important avenue of employment for children.[15] Both home-based units utilising only family labour and units employing workers and apprentices rely heavily on children's labour. Labour Bureau reports supply figures of children working in such establishments and in industries as a whole, but it is doubtful if the children who work in the former are fully represented. Moreover, while conditions of work in these establishments are reported, we need to know more about the socio-economic status and living conditions of the workers.

In her recent study, Gulati (1980) reports on the extent and nature of children's involvement in the coir industry in a few selected villages from two Talukas of the Trivandrum district. One of these Talukas, Neyyatinkara, is known for household production of coir, while the other, Chirayankil, is known for larger coir-producing units. In all 192 girls and 75 boys were studied. The proportion of school drop-outs was fairly high (48 per cent) but some children combined school with participation in coir making. Of the various operations which form part of the process of coir making, ratt rotating alone or combined with husk beating and spinning accounted for 64.7 per cent of the sample of child workers. Husk beating was also being done by many of the other children. In household production, they worked in the early hours of the day and then contributed two hours of work after returning from school. Where the children had to go to production centres, those attending school generally worked during holidays and only those living near to the centre worked for some time after school hours. A household mainly using family labour needed its children to help in the coir-making operations; others needed the children's wages for maintenance.

Sivakasi, situated in the drought-prone district of Ramanathapuram in Tamil Nadu, has earned notoriety for its match industry employing thousands of children, from the age of 5, for over ten hours a day. Women and girls predominate in the industry, for little boys have many more avenues open to them and may go off to work in towns and cities as hotel boys, garage hands, hawkers, domestic workers and so on.

Children working in the match factories are mostly from families of Harijan landless labourers from the hinterland, and are paid on a piece-rate basis. They are transported to and from the place of work in buses which pick them up well before daybreak and generally drop them off after 6 p.m. Two other industries in Sivakasi, making toy crackers and coloured calenders, also employ children in large numbers. It is estimated that these three industries employ about 40,000 child workers, who form more than half of their total labour force (Menon, 1979).

Carpet weaving is one of the important cottage industries of India, flourishing in the states of Madras, Travancore, Uttar Pradesh and Kashmir. This is essentially a group activity which needs different levels and types of skill and also mechanical equipment. Employment of children in activities suited to them keeps the cost of production low. They also work as apprentices. In household carpet-weaving enterprises, children are considered indispensable as helpers and as trainees who will continue the craft.

According to the Report of the Labour Bureau (1954), after the Factories Act of 1948 the industrial organisation of carpet weaving was radically changed. The work connected

with weaving shifted from factories to the houses of the master weavers where laws against child labour would not apply. The looms were supervised by several master weavers who would engage about three people to work each loom, of these one or two would be children starting from the age of 10. Thus it was estimated that around Bhadohi in Uttar Pradesh, 25 per cent of the 50,000 workers engaged in carpet weaving were children, while in Mirzapur 8,000 out of 20,000 workers were children.

In Kashmir, carpet weaving involves little children, particularly girls, in long hours of back-weakening work. Another flourishing craft utilising child labour in this region is fine hand embroidery. It has been observed that maintenance of the same posture for hours and the intricacy of the work often leads to physical deformities and eye strain among children working in these cottage industries. (Times of India, 1978; S.C. Dube, personal communication.)[16]

In and around Surat District in Gujarat, boys in their early 'teens are engaged in large numbers in diamond-cutting operations which can have very harmful effects on the eyes. The workers are paid well so there is no dearth of child labour in this lucrative enterprise.

VI. Debt Bondage of Children and the Impact of the Wage System

Recent research has provided ample evidence that debt bondage is still prevalent in many parts of the country. As reported by Das, in many parts of Bihar wages are available only during the 120 days required for agricultural operations; for the rest of the year the expenses of daily needs, marriages and funerals, and bribing of forest officials inexorably drive the rural poor into the clutches of the moneylender, who thus acquires an assured supply of labour.[17] In Purulia, particularly in the hilly areas and southern parts of the district, bonded labour in payment of debt is prevalent among the scheduled castes and tribes. Children of the debtor look after the cattle of the master while womenfolk work as domestic servants. But in spite of such services by the entire family, only the interest on the loan is remitted so far as the account book of the master is concerned.[18]

In Maharashtra, extensive borrowing of money for marriages, deaths and festivals, and for repaying government loans, has meant that bonded labour has become a permanent feature. It is more common in districts with a predominantly tribal population. The debtors know neither the current balance nor the interest charged and continue to be exploited, even over generations. A substantial proportion are bonded from childhood.[19] Bhil debtors are in the power of the Gujar landlords.[20] In the tribal areas of Madhya Pradesh,

agreements between debtors and creditors for paying off the debt by service are common and one finds sons working in repayment of petty loans taken out by their fathers.[21]

In Karnataka, a Jeeta (bonded labourer) serves his master for the petty advances he or his guardian has taken and often spends his whole life repaying the interest alone. A disabled Jeeta servant has to send his son to do the work. Making loans of cash and food grains to labourers in the off-season is an easy way of obtaining bonded labour. In a landless family a boy may start working as a bonded labourer from the age of about 8.[22]

In Orissa, continuing indebtedness, reinforced by loans for current consumption at high interest rates from the landlord-cum-usurer, make debt bondage of sharecroppers and agricultural labourers a feature of rural life.[23] A money-lender reduces the rural poor to the status of sharecroppers on their own land.

A variant of bonded child labour has been reported from the Kalahandi district of Orissa which reflects the dependent relationship between the rich Brahmin landlords and the Gauda (cowherd) tenants and domestic servants. The Brahmin are creditors for the Gauda who are perennially in need of loans. One common way of clearing the debt is to sell young daughters at the age of 8 or 10 as maidservants to the Brahmin masters-cum-creditors, who then take the responsibility of marrying these girls to boys of appropriate caste when they come of age. Before then, a girl so purchased is engaged in all kinds of household chores and personal services to the members of the master's family. A Gauda family feels lucky if all its girls are thus employed, for they find it an honourable and effective way of having their daughters looked after. This is known as the system of Gaharen Tokil (S.L. Srivastava, personal communication).

The eight states which were surveyed for the practice of bonded labour in 1978, in a research project jointly conducted by the Gandhi Peace Foundation and the National Labour Institute (Marla and Maharaj, 1978) were Andhra Pradesh, Bihar, Gujarat, Karnataka, Madhy Pradesh, Rajasthan, Tamil Nadu, and Uttar Pradesh. The total number of bonded labourers in these states was 21.7 lakh or 6.1 per cent of the 37 million agricultural labourers in these states. In states like Madhya Pradesh, Uttar Pradesh, Gujarat, Rajasthan, and Karnataka the percentage of bonded labourers to total agricultural labourers was much higher than the average, ranging from 7.6 per cent in Karnataka to 11.8 per cent in Madhya Pradesh. It is noteworthy that 84 per cent of bonded labourers were from scheduled castes and tribes.

In several areas fathers over 40 years of age tended to free themselves by deputing their sons into bondage. "In many cases the farmer, who is more interested in extracting the

physical labour as intensively as he can, encourages the ageing bonded labourer to free himself by mortgaging his son. By and large, the bonded labour affected families are the constant sources of supply of bonded labour to the farmers for generations" (Marla and Maharaj, 1978, pp. 24-25). Often a man received a patch of land for cultivation by mortgaging his son for a paltry sum. About 21 per cent of bonded labourers in these states, taken together, were below 20 years of age. In Andhra Pradesh 21 per cent of bonded labourers were under 16 years of age, in Karnataka 10.3 per cent belonged to this age group, while in Tamil Nadu 8.7 per cent were from this age group. The case study material shows that, at the time of mortgage entry, a bonded labourer may be as young as 5 or 7 years old. It is well known that many boys customarily enter into bondage at the time of their marriage to repay the debt incurred on the occasion. Such a servant may be known as a "marriage servant", meaning that he has entered into bondage as a result, and at the time, of marriage.

Some features of the system of bonded labour particularly encourage the use of child labour:

(i) The pawning or mortgaging of a boy for a paltry sum of money and for some privileges from the master;

(ii) The substitution of compulsory services (in repayment of a loan) by a son's labour;

(iii) The tacit understanding that when one person in a family is a bonded labourer, his wife and children are also expected to work.

With respect to point (iii) it has been reported that in Gujarat, for example, girls do not like to marry a Hali servant because they are thereafter expected to serve in the house of the master. In Palamau, Bihar, the system of intergenerational and family bondage ensures that there is an unbroken supply of bonded labourers for the master. In other areas also, because of persistent debt, many cases of bondage span generations.

According to the National Labour Institute - Gandhi Peace Foundation study, 78 per cent of the cases of bonded labour were of debt bondage. And more than 60 per cent of the bonded labourers had mortgaged themselves for an indefinite period. This indicates that the prevalence of bonded labour had a strong foundation that technological innovations in agriculture has not weakened. Indeed, the phenomenon of bonded labour was also prevalent in agriculturally advanced regions.

According to the same study, as many as 13 per cent of the bonded labourers were working for their masters because

they belonged to a particular caste or because their family had customary service relations with the master. In such obligatory relationships men, women and children in the household have to render service to the master's household. To reiterate, with the traditional service relationships in which households of barbers, washermen and agricultural labourers, among others, are attached to land-owning households, it is rarely just one member of the household who works for the patron family. Child labour becomes an integral part of such arrangements.

The piece-rate system of wages has also encouraged the use of children as helpers or as fully fledged workers. Thus, in the tea gardens of Assam, where the employment of children below 12 years of age is prohibited by law, girls under 12 years old help their mothers in plucking tea leaves during the flush season, which is every second month. A girl generally prepares the midday meal, and when she carries it to the field for the mother she remains to help, learning to pluck the leaves efficiently in the process. Each worker is paid according to the weight of leaves plucked and a little girl is able to contribute 1 to 5 kg to her mother's basket every afternoon. As this practice is allowed by the management, future workers are being trained by the women who are currently working for them.[24] This is true of Indian tea gardens generally. On the two gardens for which data were collected by Jain, only 3 per cent of children were going to school, for, as Jain notes, "education did not equip them for working on plantations". Similarly, in the match industry mothers brought with them their 3- to 4-year-old children who contributed to the mother's output and were thereby introduced to the work environment.

The first activity in the making of leaf cigarettes is the plucking of the leaves from which tobacco is to be rolled. The leaves are sorted, made into bundles of a specific size, and then bought by contractors' agents. This work involves not only adults (mostly women) but also children, without whose help the sorting of leaves and tying them in bundles would be a slow and uneconomic process.

In the bidi (leaf cigarette) industry children are employed in the workplace where bidis are rolled, as well as in homes under the work-at-home plan. Where premises are not provided by the contractors a group of workers rent a workshop, work with the material issued to them and hand over the product to the contractor (or subcontractor). Children between 8 and 12 years of age, and sometimes even those in the 5-8 age group, are employed in these workshops. Where rolling of bidis is done under the work-at-home system, the children's contribution is considerable.

Such arrangements also operate in many craft enterprises such as coir making, tailoring and carpet weaving, and in activities such as brick manufacturing. Adult workers who

enter contracts or wage employment in manufacturing establishments or households tend to involve children as helping hands or substitutes. It is common for gardeners, domestic servants, sweepers, washermen and farm hands to share their work with their children.

Like piece-work, contract family labour tends to demand effective use of children's work. For example, the Chamar of Western Uttar Pradesh migrate seasonally to Haryana or Punjab villages for wage labour. During the transplanting season families rather than individuals migrate, women being indispensable for transplanting operations. A few families of labourers together take a contract to complete the work of transplanting in particular fields. All men, women and children belonging to these households adopt one routine and work hard to finish their section, for such contracts provide additional earnings that last them during the following months.[25]

VII. The Household and Measuring Child Work

The significance of the economic role of the household has been emphasised in much of the preceding discussion of the work roles of children, whether it was with reference to the importance of training in the socialisation process, to bonded labour, to the impact of the wage system, or to the involvement of children in agriculture, handicrafts, contract labour and so on. It would be worth looking at this unit from the point of view of a research strategy to study the work roles of children. The following diagram visualises the household as a residential unit, as a resource-owning unit, and as a unit for employment; it distinguishes between the roles of children in these different contexts.

	Economic function of household		
	Residential unit	Resource-owning[1] unit	Employment unit
Children's work role	Domestic work	"Productive" work	Income-earning work (in home or neighbourhood)

[1] Land; livestock; craftsmen's tools.

Farming households whose members do most of the agricultural work, either on their own land or on rented land, and craftsmen who have their own tools come into the category of resource-owning units. Those households owning enough resources to hire labour do not usually depend on their children for farm work but may require their help in the very busy agricultural season. In some parts of India, such as in Orissa and Himachal Pradesh, school vacations coincide exactly with harvest time.

By definition a household is a residential unit. The distinction between a resource-owning unit and income-earning unit is not clearcut, for the same household may work with its own resources and also function as a unit of employment or contract. Residential unit, resource-owning unit and employment or income-earning unit are here notionally separated, for these distinctions are worth taking into account in household surveys concerned with the nature and roles of child work.

1. Domestic Work

Children's contribution to the maintenance of the household is considerable and is also observable in households engaged in various kinds of economic activity. To present one illustration: on plantations where both the parents go out to work, children are expected to share in the household tasks at an early age. What a child does depends on the number of family members in different age groups and the ordinal position of the child. While both male and female children look after their younger siblings, girls start cooking at an early age, and their tasks generally include sweeping, cleaning utensils, fetching water from the tubewell, carrying food to the field and taking an infant sibling to the working mother for feeding. Boys tend the cattle, sell kitchen garden produce, and collect fire wood.

The problems involved in analysing domestic work are well known, but they need to be considered in the context of child work. Economists have analysed the catch-all category of "domestic work" in attempts to demarcate economic and non-economic activities clearly.[26] While collection of fuel, fruit and vegetables from the forest, cow dung, etc., is accepted as augmenting the resources of the household, activities such as cooking and minding young babies are not considered to be "gainful". It needs to be kept in mind, however, that by performing indispensable household tasks and by minding younger siblings, a child indirectly contributes to the income-earning activity of the household by freeing the mother or older sibling for work in the fields or in the wage sector; or he/she relieves the mother who can then do indispensable domestic work. Those who are involved in literacy programmes would accept that this indirect relationship of children's work with

adult economic or indispensable domestic activity is recognised by the people.

In one recent time-disposition study (Jain and Chand, 1979) activities of all family members above 5 years of age in 127 households were recorded, mainly through direct observation. In the analysis of data on children four categories of work were considered: gainful activity, child-care, home production, and school-going activity. In all, data were collected on 114 children from West Bengal and 87 children from Rajasthan. Work participation rates of children for the same regions obtained from the thirty-second round of the National Sample Survey, and also the participation rates from household census data of the project villages, were compared with the participation rates obtained through the time-disposition study. The authors concluded that "enumeration methodology" is not able to capture the work of women or children.

That study raised many important issues regarding the measurement of the economic contribution of women and children. Their research procedures also deserve scrutiny. It is doubtful, as the authors themselves admit, whether collection of time-disposition data can be managed by observation alone. If studies with larger samples are to be planned, the use of observation techniques would be still more difficult. In their research project on the role of women in rice cultivation, being conducted in villages in Tamil Nadu and West Bengal, Mencher and Sardamoni have planned a chart to be filled in by the women themselves recording the duration of their activities.[27] The two scholars have allowed considerable scope for checking by the investigators. Use of such charts, observation and interviewing may be combined for studies of children's use of time.

One of the criticisms of time-disposition studies is that measuring the work of an individual, particularly of a child, in terms of time spent is misleading. One of the questions raised, for example, is whether or not playing with a child should be considered as work. One way round this problem may be weighting the work done by any individual, but then it would be necessary to weight children's work in terms of its indispensability for the household and its indirect contribution to the economic activity of the household.

2. Productive Work

As a resource-owning unit, the household depends upon its children to share in its productive work. In nearly all kinds of agrarian production, there are many activities that can be managed by children; and some of these are specifically regarded as children's work. This is the case not only in farming households but also in those of dairymen and fishermen and of craftsmen and artisans. Children are needed to make

the household a viable production unit and may be viewed as working to provide at least part of their own subsistence. As a saying among the Khasi tribe of Northeast India goes, "Every child brings its own food," meaning that what Nature offers needs to be transformed by the production process to obtain food or marketable items and that a child participates actively in this production process, thereby increasing output.

The problem of weighting children's work would again confront us. Work like grazing the cattle, channelling water from one field to another, guarding the crops and running errands is time consuming but also essential. Until there is a total transformation of technology most of these tasks will remain.

In the work of craftsmen and artisans, co-operative endeavours make the involvement of children in craft-related activities a necessity. Depending upon the availability of tools and material and the demographic composition of the household, some children may be sent away as apprentices or helpers to fellow craftsmen. In cottage industries run by entrepreneurs, many children whose hereditary craft is the same are employed. So much of the wage labour in these industries is an extension of the children's contribution to the household economy.

In the region of the Khasi tribe in north-east India, a village council which owns all the rights of allocation and disposal of communal land and its resources allocates particular coal deposits to households on formal application. In the operations connected with mining, children, mostly boys, have an important role to play. While men do the digging inside the tunnel, boys carry the coal outside. In point of fact, children below 12 years old are preferred because their height permits them to walk inside the tunnel without bending or without much difficulty; they are lithe and do the running about effortlessly. In a village studied by G.B. Panda (personal communication), the village council has made special arrangements for a night school for the boys who work in the coal mines during the day. In regular mines the minimum age of employment is 15.

3. Income-earning Activities

Households owning no resources (or whose resources are negligible) engage in various income-gaining activities. For instance, agricultural labourers of certain kinds, sharecroppers, those engaged in making leaf cigarettes, embroidery workers and washermen all work as household units. Children are regular working members, or integral parts, of these units. The study of such units is essential if one is to understand the extent and the value of child labour.

In the households of fishermen in coastal Andhra Pradesh, activities of all members are geared to the operations connected

with fishing. At the age of 12 a boy starts accompanying his father. Since the mother is occupied in selling the fish, 10-year-old girls learn to look after the household and 5-year-olds collect firewood (G.B. Panda, personal communication). Puthenkalam has described the involvement of school-going boys in fishing operations in Kerala (Puthenkalam, 1977).

As mentioned earlier the Chamar of Western Uttar Pradesh migrate seasonally to Haryana or Punjab villages in search of employment. At harvest time only men go, while women and children continue to make ropes. Making ropes is a collective activity requiring the help of children. During the transplanting season when all household members migrate and a few households together contract to transplant in particular fields, the children's contribution is substantial.

The sending of children to work for wages outside the home is a logical outcome of their activities within the household. If children can contribute to the household economy by doing work appropriate to their age and are able to do an adult's job at the age of 12 or 13, they can also work on somebody else's field or loom, or be hired to do some other job. Perhaps because children's usefulness is so widely accepted, it facilitates the parent's decision to hire them out to ease the household's economic situation.

However, recognising that fact - which provides a corrective to unwarranted assumptions regarding child labour - should not blind us to the deprivations child wage-workers suffer, the exploitative character of the wage labour market, and the economy in which children are viewed as cheap labour. The study of child labour necessitates an understanding of these social phenomena.

In particular, focusing research on the household can accommodate many different kinds of inquiry and a wide variety of data. In addition, it is relatively easy to reach the individual through the household. However, the household approach may not be able to cover all kinds of child worker, so individuals, peer groups, or work-places may be more practicable and promising fields of inquiry. But even here, knowing the family context would add to the richness of our understanding.

VIII. Education and Child Work

It is often assumed that there is a negative correlation between child work and formal education, an increase in school enrolment and attendance being associated with a decrease in child employment. So any extension of educational facilities for children is regarded as an effective remedy against the evil of child labour. Wherever rising school attendance and declining use of child labour appear together, it is difficult to say which is the effect and which the cause. But the high

drop-out rates and low attendance rates suggest that children's presence is required elsewhere during school hours.

The case of Kerala is interesting. There the rate of literacy is relatively high, while the rate of children's employment is low. However, many people who know Kerala insist that the relatively low rate of children's employment is due largely to the availability of adults who render children superfluous in the labour market. The higher level of social and political consciousness among the masses, which is characteristic of Kerala, also acts as a deterrent to employing children when adults are available.[28]

It is erroneous to think that for the rural masses (and for the poor especially) education is an investment towards enhancing earning capacity. Education is undeniably important for rural children, but fresh thinking about its objectives, contents and methods is necessary. Plans of time schools and ungraded schools are already being implemented in some parts of the country. Informal schools in Tamilnadu and ungraded schools in Kerala essentially aim at fighting stagnation and high drop-out rates. Rather than attempt to use education as an instrument for the elimination of child labour we should aim at giving it a more functional content and make its timing and duration flexible to suit the requirements of those for whom it is intended.

So long as education has only a limited value and so long as children's contributions continue to be essential, perhaps the most practical course would be to restrict the number of hours of work for children, improve their conditions of work, and organise schools with suitable timings and curricula that would give them the most essential ingredients of education within a short time. If we recognise the indispensability of the child's labour contribution and the desirability of education we have to think about how to combine the two.

IX. Conclusion

To conclude, we recapitulate some of the points made regarding possible research on work roles of children, and explicitly state much that was implied in the foregoing pages about appropriate research strategies.

Sections II and III discussed children and their work as depicted in Hindu religious tradition and sacred literature, and the cultural notions regarding the stages of human life, with particular reference to the definition of childhood and its various stages. Cultural phenomena should be seen as reflecting the socio-economic structure of society of earlier periods. The discussion identifies an important research area, illuminating the present with the help of the past, much of which remains to influence current behaviour.

Literature pertaining to slavery, differential patterns of education and labour, organisation of guilds, relations between powerful and subservient groups, the duties enjoined upon castes at different levels, and so on, can throw much light on the children's status vis-à-vis work in various periods of history. This avenue for understanding the roots of people's attitudes and views may not be confined to Hindu literature; it would also be worth while to tap Islamic sources and those of other religions. Folk literature too may prove to be a rich source of information. Another source for understanding the situation in the late nineteenth and the present century is a special class of literature known as "literature of the down-trodden". It has the merit of having sprung from poignant life experiences of persons in the lowly communities.

As mentioned earlier, some analyses of macro data have provided useful insights and contributed substantially to our understanding. It needs to be emphasised, however, that more rigour and sophistication are required in the use of macro data and that this calls for an examination of categories and definitions and also of data collection methods.

For instance, time-disposition studies can prove an effective tool for understanding the economic roles of children and for placing them in a comparative framework. But we should try to increase the size of the samples for such studies and develop improved techniques of observation, interviewing and self-reporting.

Implementation and evaluation of literacy programmes, primary education schemes and tribal boarding schools, etc., are often forced to take account of children's roles and preoccupations, but systematic studies of these roles and preoccupations remain to be undertaken. A few intensive studies of communities engaged in different types of work and with different degrees of economic viability should contribute a great deal here. Percentages and trends in macro analyses can be made more meaningful with the help of such studies. Moreover, they could contribute to an improvement of census categories and of terms used in other large-scale surveys. Such studies should be planned so that they cover the relevant cultural notions, measure the extent, character and place of the work in the economy and also examine how adults and children view their own and each other's work.

In the wake of well publicised efforts to abolish bonded labour a number of articles and reports, depicting the conditions of various kinds of bondage, have appeared. Although not specifically focused on children, an indirect understanding of the compulsions under which children work as bonded labour can be obtained through these studies. The most common type is debt bondage, which often eludes legal measures designed to abolish it. It would be useful to undertake intensive studies of bonded labour focusing on children and bringing out the

economic and social compulsions which lie at the root of the phenomenon of bonded child labour and the way children are made the target of the selfishness of money-lenders and landlords.

Employment of young boys and girls as attached labour, often as all-purpose servants, is also worth studying, as is domestic child labour in small towns and cities. These are sensitive areas of inquiry and would involve considerable tact and skill. A survey can give an idea of the age groups from which domestic servants are recruited, while a few representative cases of children working as domestic helps in households at different socio-economic levels should give a fairly clear picture of this category of child worker.

After agriculture, cottage industries probably constitute the largest sector employing children. Because of deception of various kinds and the employment of children as apprentices and in home-based units, the statistics that would give a correct idea of the dimensions of the problem are not easy to collect. But even where statistics exist, we have scanty knowledge of the homes of these children, their living conditions, their traditional occupations and the processes of socialisation they have undergone, the expectations of their parents from them, and opportunities for formal education they have had. Nor do we know much about the patterns of apprenticeship and the links between domestic units and contractors, middlemen or semi-organised establishments, i.e. about the mechanics of exploitation in many of these industries. For such studies it would be necessary to take up particular units, localities or communities for research.

Many types of work in small-scale industries and handicrafts have harmful effects on the health and growth of children engaged in them for long hours. While also affecting adults, these hazards are much greater for growing children. Risks to attaining a normal stature and posture and retaining normal eyesight are characteristic of many kinds of work in which children are required to sit and work, straining their eyes, for long hours. Tuberculosis is associated with the making of leaf cigarettes. This is an industry, like those dealing with mica, fireworks, matches, etc., with clearly harmful effects. A few incisive studies of the effects on children's health, nutrition and growth of certain types of work and their environment would fill a serious gap in our knowledge by removing vague notions and by making the association of various factors clear.

Children's multifarious activities help to make a household a relatively viable unit of production or give it a subsistence income in the case of marginal farmers, agricultural labourers, construction workers, and so on. It would be particularly interesting to study the migrant labour engaged on the construction of roads and buildings and in agricultural operations.

It is being increasingly realised that improvement in the welfare of small children and women should be attempted simultaneously. Research on child work roles, and an assessment of their contribution in terms of time and actual inputs, may be efficiently organised by combining studies of children and women. Both these categories of labour often work without wages, their contribution is generally not formally recognised, children act as substitutes for mothers at home, and both pose a problem for the definitions of gainful work and workers. Moreover, the work of both needs to be viewed in their total setting and hence calls for a household approach to research in many situations. This strategy may also be advantageous for enabling a researcher to observe and interact with the people without having to single out a particular age group for exclusive attention from the beginning. An understanding of the attitudes of elders towards children and their work will also be facilitated by focusing on both women and children.

This chapter does not advocate use of any particular source of data, nor of any one approach to the exclusion of others. It cautions that, in this complex area of inquiry, there are chances that some serious biases may creep in and distort our view; indicates the relevance of cultural notions, even for assessing the structural socio-economic conditions that provide the basic context for children's participation in economic activity; looks at some available data on child work in India; and offers a few suggestions on developing research strategies. In other words, what is advocated is to look for deeper causes so as to grasp the nature and magnitude of children's economic contribution, and to understand the economic and cultural causes of this phenomenon. There is a need to evolve research strategies which ensure that reality does not elude us.

ANNEX

The following terms are used with reference to child activities, roles and status in different contexts.

Arbhaka: for a new-born child.

Shishu: for a child of a few months to a year or so. It is also used to denote a child before the ceremony of first solid food giving which is generally performed at the age of 6 months to 8 or 9 months. In another source, shishu refers to a child under 8 years.

Bala: under 5 years. It is also used to denote a child before the performance of the tonsure ceremony. It is commonly used as a general term to refer to non-adult status.

Poganda: from the fifth to the end of ninth year, or until the sixteenth year.

Kishora: 10 to 16 or 11 to 16 years. Its feminine form is kishori.

Kumara: this term is used to denote a boy before his upanayana, or initiation into the learning of sacred knowledge, has been performed. Its application in this sense is restricted. Kumara is generally used in the sense of a minor in law. It is also used to denote an unmarried person and in a slightly distorted or interpolated form the term is also present in the regional languages. Culturally speaking, marriage confers adulthood on a person. For a girl the term is kumari.

It is an interesting fact that in the most northeasterly corner of India, a community known as Ramos follows a system of clear-cut distinctions in refering to persons belonging to different age groups. To quote Dhasmana: "As the children grow up they are addressed according to their age group. Children up to the age of 3 years are called anga. A group of children of this age group are addressed as anga kiding. Children between 4 to 9 years are called as home. Children of this age group play in the villages during the day time and wait eagerly for the return of their parents in the evening. After they attain the age of 9 or 10 they are separated in their nomenclature and activities. The boys between 9 to 14 are called yapa. They help their parents in wood cutting and other agricultural jobs. The girls of this age group are called Nyimum. They look after children in the house, bring water from the water point and prepare food. The boys of the age group of 14 years to 19 or more are called Ami mitur. A young boy is addressed as Ami or Mitur until his fortieth year. After the attainment of boyhood a boy begins to learn the intricacies of agriculture, fishing and hunting. For some time he is an understudy to some experienced person like his father, uncle or an elder brother".[29]

Collection of terms denoting different ages and age groups, and the meanings and references implicit in them, for various Indian languages should be a fruitful area of study.

Notes

* Institute of Rural Management, Anand, Gujarat (India). I gratefully acknowledge the help of my son, Mukul Dube, in preparing the initial plan of this paper and the critical support of my husband, Shyama Charan Dube. Gopo Bihari Panda provided research assistance and enabled me to draw upon varied sources scattered in different places. Mandakini Khandekar of the Tata Institute of Social Sciences, Bombay, generously helped me in procuring appropriate references to current work on child labour in India. While writing and revising the paper I profited a great deal from discussions with Adrian C. Mayer, Prabhati Mukherjee, Sumati Mutatkar, Jayaram Panda, and Baidyanath Saraswati. I would like to thank Satish Arora and S.S. Sundaran for secretarial assistance and Narendra Maini for checking the bibliography.

1 S.C. Dube: Indian village (London, Routlege and Kegan Paul, 1955), p. 149.

2 A culmination of such beliefs is found in the story of Abhimanyu, who figures in the epic of Mahabharata. It shows that a child in the womb is capable of absorbing even systematic knowledge. While Subhadra, the mother, was being given an explanation of the Chakravyuha (an intricate army formation, impenetrable to an enemy) by her husband, Abhimanyu, the child in the womb, was listening intently. Unfortunately, midway through the narration, Subhadra fell asleep and the husband stopped the narration. Abhimanyu could learn only how to enter the Chakravyuha and not how to come out of it. He grew up with this incomplete knowledge which eventually became the cause of his death at the age of 16. Like a true warrior he entered the Chakravyuha arranged by the enemy and fought bravely till he penetrated it. But not knowing how to get out, he found himself helpless and was killed.

3 B. Saraswati: Pottery making cultures and Indian Civilisation (New Delhi, Abhinar Publications, 1978).

4 S.C. Dube: The Kamar (Lucknow, Universal Publishers, 1951), pp. 86-87.

5 K. Thusu: The Dhurwa of Bastar (Calcutta, Anthropological Survey of India, 1965).

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[10] D.G. Danda: Among the Dimasa of Assam: An ethnographic study (New Delhi, Sterling Publishers, 1978).

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[12] For example, S.C. Dube, 1955, op. cit.; A.R. Kutty: Marriage and kinship in an island society (Delhi, National Publishing House, 1972); M.N. Srinivas: The remembered village (Delhi, Oxford University Press, 1976).

[13] M. Mathew: Women workers in the unorganised sector of coir industry in Kerala sponsored by ICSSR (Kottayam, 1989). Indian Institute for Regional Development Studies.

[14] S. Jetley: Impact of development on rural women: A case study from Western UP, sponsored by ICSSR (Banaras Hindu University, 1979).

[15] The industries, some of which are run on both a factory and cottage industry basis, engaging child workers in sizeable numbers include: bidi (leaf cigarette) making; weaving (cotton, silk, wool); embroidery; carpet weaving; hand block printing; clay modelling; pottery; candle manufacturing; leather tanning and shoe making; coir making; rope making; match industry; mica; shellac; toy making; button making; bamboo work; envelope making; horn industry; cotton ginning; cleaning and pressing; bleaching and printing; and brick manufacturing.

[16] I am grateful to my husband, Professor S.C. Dube, currently ICSSR National Fellow at the Institute of Educational Planning and Administration, New Delhi, who was then vice-chancellor, University of Jammu, for providing me with this

information. The programme on non-formal education of the University had included, as an essential element, acquiring of basic information about the rural population in the state.

[17] A.N. Das: "Of human bondage", in Mainstream, 1976. No. 35.

[18] K. Chaudhuri: "Bonded labour", in Economic and Political Weekly 1976, No. 10.

[19] H. Dalvi: "Maharashtra: Bonded labour continues", in Economic and Political Weekly, 1977, No. 22.

[20] S.D. Kulkarni: "Over a century of tyranny", in Economic and Political Weekly, 1975, No. 10.

[21] R.P.S. Bhonwal: "Bonded labour", in Social Welfare, 1976, No. 5.

[22] M. Tippashetti: "Jeeta system and the law", in Social Welfare, 1976, Nos. 5-6.

[23] G. Iyer and A.N. Das: "Orissa: A case study of poverty and bondage", in National Labour Institute Bulletin, 1976, No. 5.

[24] I am grateful to Shobhita Jain, Jawaharlal Nehru University, for preparing a note on children's contribution to the household economy of the plantation workers in Assam on the basis of her data collected for a doctoral thesis under preparation.

[25] This is based on a discussion with Mukul Dube of his data on migrant labour from Western Uttar Pradesh villages collected for a doctoral thesis under preparation at the University of Sussex.

[26] For example, Bardhan divided domestic work into the following categories:

(i) Household chores like shopping, food processing and cooking, washing and cleaning, child-care and attending the sick and the old in the household;

(ii) Social and ceremonial activities;

(iii) Collection of "free" goods (wild fruits, vegetables, fish, small game, cowdung, firewood, grass, etc.), fetching drinking water, and work on garden produce (to the extent that this is not reported as work on own farm);

(iv) Production, repair and maintenance of consumer durables for household use (sewing garments, taking care of livestock in domestic use, improving and repairing own houses, etc.);

(v) Involuntary idleness not reported in any other time-disposition category.

Activities (iii) and (iv) should be regarded as gainful activities; although Bardhan cautioned that some activities in (i) might also be gainful. Quoted by D. Jain and M. Chand: Field investigation of rural households: Especially their time disposition Vol. II & III, (New Delhi, Institute of Social Studies, 1979).

[27] The research project is financed by the ICSSR and is located in the Indian Statistical Institute, New Delhi.

[28] My attention was drawn to this interpretation by Saradamani of the Indian Statistical Institute, New Delhi.

[29] M.M. Dhasmana: Sociology of the Ramos of Arunachal Pradesh, Ph.D. thesis, Gauhati University, 1978.

Chapter 8

Household and Non-household Activities of Youths: Issues of Modelling, Data and Estimation Strategies

by Mark R. Rosenzweig*

I. Introduction

To begin to understand the economic roles and contributions of children it is helpful to study how households allocate resources among family members and between activities. One useful method is to formulate and test models of the household with appropriate data so that the range of alternative approaches depicting household behaviour, with their associated policy implications, can potentially be narrowed. In this chapter, I describe and compare a number of variants of economic models of the household and youth behaviour, differentiated according to both the degree to which labour markets are assumed to be competitive or "complete" and whether household activities and their associated "technology" are explicitly considered. I then discuss the kinds of micro survey data needed to utilise the models empirically to the best advantage, with attention to the derivation of policy-relevant estimates and to model verification. I also consider the appropriate estimation strategies and pitfalls implied by such models. In the final section, the methodology is applied to data from rural India, with particular focus on the inter-relationships between the employment of adult women (mothers) and the schooling and labour force participation of male and female youths. Estimates of the impact of adult and child wage rate changes and employment restrictions on youth behaviour by sex are provided.

II. The Household in a Market Economy

1. The Basic Model

(a) Assumptions and structure

In formulating a model of household behaviour, the importance of assumptions about the labour market environment can be highlighted by considering two polar cases. The first assumes that there is a perfectly competitive market for the labour services (time) of all household members or labourers such that

each individual can sell all of his or her time at a constant price (wage rate) with no risk or costs of job search. The second extreme case, considered in Section III, is one in which households are autarchical; there are no markets for labour services and households engage in the production of goods which they either consume or sell in product markets. While neither set of labour market assumptions precisely depicts any existing economy, they may each be useful approximations for particular settings. The autarchical model may be a reasonable one for "land-surplus" economies in Africa; the market model may be appropriate to areas such as rural India, where wage rates are observed for all sexes and age groups, including children, and almost all households buy and/or sell labour services, as is shown below. The appropriateness of the model is, of course, also determined by the degree to which its refutable implications or predictions are not contradicted by the data.

The basic premise of household models as formulated in the neo-classical tradition is that the family, as a unified entity, maximises a common welfare or utility function in which the preferences of all family members are taken into account. The simplest household labour supply model assumes the maximisation of a one period utility function by two family members (husband and wife), subject to constraints on the time available to each and the market value of that time.[1] The household "goods" are the husband and wife's household time ("leisure") and a jointly consumed good purchased with labour market earnings; time is allocated by both partners so as to maximise their aggregate welfare. The model does not describe, however, how agreements on individual resource allocations are formed nor does it yield the relative welfare levels of the individual household members. Rather, given the existence of such a welfare function with certain "neo-classical" properties, it provides a set of testable implications in terms of the responses of consumption and labour market participation of each household member to changes in wage rates and income.

An extension of this framework to include the activities of children is straightforward. To take into account the major activities of children, and the ones most easily obtained from survey data, consider a household utility function in which family welfare is a function of a jointly consumed purchased good X, the household time of the mother and father, l_w and l_h, the household time and schooling level of each child (assumed, for simplicity, to be the same for each) l_c and E_c, and the number of children n. The model can easily be extended to take into account differential allocations between children by adding sex-specific (or even child-specific) "goods".[2] The latter extension would imply that male and female home time (or schooling levels) are not treated by the family as perfect substitutes, and is considered in Section V. In any case, in the

model the family or the family decision-makers can be considered to take into account explicitly the well-being of the children, if it can be assumed that child home time (leisure) and schooling augment child welfare.[3]

It is assumed that each birth consumes resources (or reduces expenditures, such as for contraception) at a rate per child P_n, that the "production" of schooling requires both child time l_{ec} and purchased goods X_e (books, teachers, etc.). Given constraints on the total time available to each family member, the prices of X and X_e, P_x and P_e, and the wages offered for the use of each member's time in market activities, the total resource, or full income, constraint of the family is determined. More formally, the household maximises the utility function (1) subject to the full income constraint (2):

$$(1) \quad U = U(X, l_c, E_c, l_w, l_h, n) \qquad E_c = e(l_{ec}, X_e)$$

$$(2) \quad F = V + \Omega_w W_w + \Omega_h W_h + n\Omega_c W_c$$

$$= W_w l_w + n(P_e X_e + P_n + W_c(l_c + l_{ec})) + W_n l_h + P_x X$$

where V is non-earnings (exogenous) income from wealth endowments and Ω_w, Ω_h and Ω_c represent the total available time to the mother, father and each child.

As can be seen from (2), total earnings from children are $W_c(\Omega_c - l_c - l_{ec})n$, the total earnings (time) cost of schooling is $w_c l_{ec} n$ and total direct schooling costs are $P_e X_e n$. The literature has devoted a great deal of attention to these "interactions" in the budget constraint (Willis, 1973; Becker and Lewis, 1973; Tomes, 1978) which arise from the simplifying assumption that all children receive equal resources. While it is obvious that the total cost of having, say, an additional child depends in this framework on the amount of resources (l_{ec}, l_c, X_e) chosen to be "expended" on that (each) child and that, similarly, the total cost of increasing the schooling level, say, of each child depends on the number of children chosen, n, it can be easily shown that the existence of these interactions provides no more testable predictions or policy implication than are implied by standard (non-interactive) neo-classical models or any different estimation strategies (Rosenzweig and Wolpin, 1980b). These implications are discussed below.

(b) Testable implications

The model yields a set of demand equations for the choice variables - l_w, l_h, l_c, l_{ec}, n, X, X_e - each of which is a function of the same set of exogenous price and income variables - W_w, W_h, W_c, P_n, P_x, P_e, V; i.e.

$$
\begin{aligned}
l_w &= \Psi_w(W_w, W_h, W_c, P_n, P_x, P_e, V) \\
&\vdots \\
n &= \Psi_n(W_w, W_h, W_c, P_n, P_x, P_e, V) \qquad (3) \\
&\vdots \\
X_e &= \Psi_e(W_w, W_h, W_c, P_n, P_x, P_e, V)
\end{aligned}
$$

The predictions of the model pertain to the ceteris paribus or partial associations between the exogenous and endogenous variables in each of these demand functions. As an illustration of the predictive content of the model, consider the separate effects of a change in the child wage, W_c, and the mother's wage, W_w, on child work time, $l^{er} = \Omega_c - l_{ec} - l_c$, and the mother's work time, $l^w = \Omega_w - l_w$. These predicted effects, evaluated at the optimal (utility maximising) values of the choice variables, can be decomposed into utility constant price effects and price-constant income effects. Thus, the effect of a change in the wife's wage on her work time, holding constant all other prices and non-earned income, is:

$$
(4) \qquad \frac{dl^w}{dW_w} = \left.\frac{dl_w}{dW_w}\right|_{u=\bar{u}} - l^w \frac{dl_w}{dF}
$$

and similarly,

$$
(5) \qquad \frac{dl^w}{dW_c} = - \left.\frac{dl_w}{dW_c}\right|_{u=\bar{u}} - l^c \frac{dl_w}{dF}
$$

$$(6) \qquad \frac{dl^c}{dW_w} = - \left. \frac{d(l_{ec} + l_c)}{dW_w} \right|_{u=\bar{u}} - l^w \frac{dl^c}{dF}$$

$$(7) \qquad \frac{dl^c}{dW_c} = - \left. \frac{d(l_{ec} + l_c)}{dW_c} \right|_{u=\bar{u}} - l^c \frac{dl^c}{dF}$$

The predictions of the neo-classical framework without further assumptions, are contained in the first terms on the right-hand side in each of the expressions. In these examples (there would be a total of 25 in the model depicted here) the predictions are: (i) the first terms in (4) and (7) should be positive, and (ii) the first terms in (5) and (6) should be equal, although they are not signed.

While it may not be particularly surprising that a rise in the value of market time leads to a substitution towards more work, holding constant real income, the symmetry of the (utility-constant) cross price effects is less obvious and points to an important general implication of the neo-classical framework - the interdependence of household choices. In this example, the model suggests that if there is an income constant effect of a change in the child wage on the mother's market time there will be an identical effect on the child's market time due to a change in the mother's wage. Thus, as a consequence of the interdependence (cross wage effects) of labour supply behaviour within the household, an exogenous change in adult female labour market conditions may have important effects on the employment of children and vice versa, regardless of the extent to which children and adult females are viewed as substitutes by employers.

Because the model cannot predict how a change in income will affect the demand for any particular good, the signs of expressions (4) to (7), containing income effects, are not indicated.[4] Indeed, if, as is usually assumed, an increase in income generally raises the demand for a good, it can be seen that the model cannot predict what would happen to the level of total non-market time for any person when the price of that time rises - the (utility-constant) price and (price-constant) income effects are of opposite sign. Since it is possible, however, to obtain estimates of income effects, as $dZ/dF=dZ/dV$, where Z is any choice variable, estimates of the total or "uncompensated" wage effects and income effects do permit tests of the model. Moreover, given relatively low levels of child work time l^c, it can be seen that estimates of (5) and (7), the uncompensated effects of a change in the child wage, will be very close in magnitude to the utility-constant

child wage effects, obviating the need for estimates of income effects to test the model when looking at the roles of children.

It should be noted that the ability of the neo-classical framework to predict the consequences of wage, price or income changes in the absence of empirical information is directly related to the degree to which structure or additional assumptions are imposed on the unobservable utility function. The predictive content of the model described is derived solely from the standard, and relatively weak, set of neo-classical assumptions which define the "rationality" of household decision-makers, such as transitivity of preference orderings. The dilemma for testing is that while additional testable implications (predictions) can be derived from a more precisely structured model, if such tests lead to a rejection of any one prediction, it is not clear which of the set of assumptions was responsible and thus which part, or whether the whole approach, should be rejected. This ambiguity results from the fact that the structural assumptions imposed on the utility functions cannot be directly refuted since they cannot be observed. However, it should be noted that the framework does readily allow for specifications of hypothesised exogenous societal determinants of unobserved preferences or tastes, such as religious proscriptions on female work, and provides testable implications for such variables to the extent to which their roles are clearly modelled. Such variables are considered in the empirical section below.

(c) Policy relevance

Knowledge (estimates) of the relationships between the exogenous and endogenous (choice) variables from the set of household demand equations (3) not only provides sufficient information for testing the model but also for answering a number of policy-related questions. It is obvious that the wage effects, given by (4) to (7), indicate how child and adult female labour supply would change in response to exogenous shifts in the level and composition of labour demand; an aspect that would be of interest to planners. More importantly, however, such expressions also indicate the array of consequences associated with interventions in any one labour market. The effects of a subsidy or increase in adult female wages on child employment, for example, are ascertained directly from an estimate of (6).

Besides indicating the effects of price interventions, information on price (wage) and income effects can also be used to compute the effects of imposing quantity constraints on behavioural variables. This latter type of intervention appears particularly relevant for studying the activities of children, given the prevalence of compulsory schooling laws and child labour prohibitions. The fact that information on price effects translates readily into quantity-constraint relationships has been

overlooked by economists employing essentially neo-classical models. However, it can be easily demonstrated that the effect of a small exogenously imposed change, at the initial equilibrium, in the level or amount of, say, child market time on the level of adult female labour supplied to the market, is given by:

$$(8) \qquad \frac{dl^w}{dl^c} = \frac{(dl^w/dW_c)\Big|_{u=\bar{u}}}{(dl^c/dW_c)\Big|_{u=\bar{u}}}$$

i.e. the total effect on the labour supplied by women of an exogenous reduction in the quantity of child labour that is permitted, is equal to the ratio of the utility-constant child wage effect on female market labour time from (5), to the utility-constant "own" child wage effect, from (7).[5] Since the latter, as discussed, should be positive, the direction of the effect of constraining the labour supplied to the market by children is given by the sign of the child wage effect on the wife's labour supply, the sign of expression (5), which, as indicated, provides a close estimate of the utility-constant wage effect. Similarly, the effect of imposing a minimum school-leaving age (exogenously raising time in school, l_{ec}) on adult female employment can be computed from estimates of $(dl_{ec}/dW_w)_{u=u}$ and dl^c/dW_c. The potential effects of both quantity and price interventions in labour markets can thus be ascertained from the household demand equations even where labour markets are freely competitive.

2. The Farm or Family Enterprise Household Model

The basic framework in the market context can also be readily adopted to take into account the allocation of household resources, such as child time, to the production of marketed goods, as in farm families. Let the production process of the household-produced marketed good be described by the function:

$$(9) \qquad Y = \Gamma(L_c, L_w, L_h, k)$$

where the L_i, (i = c,w,h), are the total (family and hired) amounts of child labour and adult female and male labour and where k is a vector of farm production inputs (land, fertiliser, etc.). Then if hired and family labour of the same age and sex are perfect substitutes in farm production, the budget

constraint for the farm household is:

$$(10)\ F = V + \Omega_w W_w + \Omega_h W_h + n\,\Omega W_c + P_y Y - (L_w - l^w)W_w$$

$$- (L_n - l^h)W_h - (L_c - nl^c)W_c - P_k K = W_w l_w$$

$$+ W_h l_h + n(P_e X_e + P_n + W_c(l_c + l_{ec})) + P_x X$$

where P_k and P_y are the market prices of k and y. The farm household maximises utility, described by (1), subject to (10).

It can be readily seen that the qualitative predictions of the basic model are not affected when farm production is considered, given the labour market assumptions, since whether the household hires labour or allocates the time of household members to both farm production and the labour market, the time of each individual is always allocated such that its value is equal to the appropriate market wage (Rosenzweig, 1978). The wage effects on total labour supply to non-household economic activities in the farm model are thus the same as those described by (4) to (7).

One additional and important implication of the farm setting is that farm production variables - input prices, exogenous fixed factors (soil quality), output price and agricultural technical change - will also affect the household's decisions with respect to labour supply, child schooling and consumption and thus also enter all of the household demand equations. However, since the values of time are unaffected by changes in these variables, given the market for labour, such variables, which affect farm output, will influence the choice variables only because they alter income. Farm production variables do not induce substitution effects in the complete market setting, given the specification of the model. An important exception is where the returns to schooling are affected by production variables not specific to the individual farm, i.e. technical change. Even if there are complete and perfect markets for human capital, such environmental changes will result in both income and substitution effects, but in both farm and non-farm families. Thus while the levels of the total contributions to earnings by children and their mothers and the set of determinants may differ between farm and non-farm households in the same labour market, their responses to wage and other price changes will be similar.

3. Household Time Allocation and Household Production

The models depicted in (1) and (2) and (1) and (10) are silent on the allocation of the time of family members within the household. A great deal of effort has been exerted in recent years to collect detailed information on such activities (see Boulier, 1976, DaVanzo and Lee, 1978, and Anderson, 1979, for descriptions of three such surveys from the Philippines, Malaysia and Guatemala), in response in part to the development of the household production framework with its emphasis on the time cost of household activities.[6] Little attention has been paid, however, to the usefulness of such data in learning about family behaviour, beyond description, compared with the very high costs of collection, nor the extent to which the household production approach provides testable implications beyond those generated from the basic neo-classical framework, as described above.

Note first that the basic model can easily be modified to take into account different uses of household time beyond the two considered (l_c and l_{ec}) by simply breaking up l_c into distinct time uses which enter the utility function as goods, thus enlarging the number of household demand equations in (3). Each activity j for children, say, l_{jc}, however, has the same price or value in the market model, namely W_c, as utility is maximised when time is allocated so that its marginal value in every use is equal to the market wage. Because a change in the wage of children thus alters equally the cost of their every household time use, it can easily be demonstrated that no predictions can be derived regarding how any one activity will respond to the wage change, although all the l_{jc} cannot increase when W_c rises. For example, the effect of utility-constant wage change on school time or on child home time cannot be determined, but their sum must fall when W_c increases. Indeed, because the effects of a wage change on the total amount of household time is predicted regardless of the number of household activities considered, the predictions regarding labour supply effects given by expressions (4) to (7) still hold in the household "time-allocation" model. Detailed information on time use is thus of little help by itself in testing the neo-classical framework, nor is its policy value clear. Such data can be useful, however, when accompanied by additional information, as I discuss below.

In the household production framework the l_{jc}, l_{jw}, l_{jh}, and X do not affect family welfare directly but are inputs into the production of "commodities", the ultimate sources of utility. However, without restrictions on the form of the functions

describing the production of commodities - in addition to the specification of the inputs which enter into each activity and the identification of the set of commodities - no testable implications beyond those already discussed for the basic neo-classical model can be derived. For example, suppose we specify four commodities, one using children's home time (Z_c), another using the home time of the mother (Z_w), schooling E_c, and number of children n, as before. The production functions for Z_c and Z_w are:

$$(11) \quad Z_c = \theta(l_c, X)$$

$$(12) \quad Z_w = \theta(l_w, l_h, X)$$

and the utility function is

$$(13) \quad U = U(Z_c, Z_w, E_c, n)$$

The budget constraint is identical in this framework to that in the standard neo-classical household model, of course, as it pertains to the basic inputs, market goods and time.

Even with the quite restrictive separability assumption embedded in (11) and (12) (children and the wife are assumed not to participate in the same activity), the demand equations derived from the model in terms of the observable, marketed goods (time inputs) would look like those in (3) from the standard model, and would display the same properties. They would be interpretable, however, in terms of both the characteristics of the utility function and those of the production functions. Enlarging the set of Zs would not add any further testable implications; increasing the set of inputs would produce identical implications to those derived from augmenting the number of goods entering directly into the standard, neo-classical utility function, as in (1).

What value, then, is the household production approach? Perhaps most important is that the framework allows the consideration of two possibly important factors influencing behaviour which are not readily embodied in the standard household model - household productivity or efficiency and household technology. The former might be hypothesised to be a function of parental education and thus the model provides a distinct role for education in influencing household behaviour. The notion of a household technology points to the possible importance of technical change, such as the introduction of

labour (time) saving appliances or foods, in altering the labour supply behaviour of both children and adults, and provides a framework for specifying the influence of these phenomena.

To illustrate the importance of the distinction between the household's production technology and its preference orderings, embodied in the utility function, consider the interpretation of an empirically observed positive relationship between the wife's schooling and the schooling of her children. If this association is due solely to the higher efficiency of mothers in producing household commodities, who thus have higher levels of real income and may have a higher demand for schooling, then it can be said that such households are "better off" than those where women are less educated. If education merely shifts preferences or "tastes" for child schooling and perhaps other commodities, however, no welfare comparisons can be made.

The household production approach thus provides a framework for distinguishing between technological and "tastes" differences across families and over time in determining behaviour. The framework is useful empirically, however, only if information on all household production inputs and outputs is available so that functions such as (11) or (12) can be estimated and tests pertaining to productivity differences or technological change effects can be implemented. Thus, household time allocation data can be useful for understanding behaviour, but only if they are accompanied by detailed information on household goods inputs and, most importantly, on the outputs of the household activities, the Zs. Unless the characteristics of the household production functions are known in advance or can be estimated, the household production model is no more or less useful than the conventional neo-classical model for understanding more readily quantifiable aspects of behaviour that are observed outside the household, such as work time. With information on the Zs and inputs, the contributions of children to household production activities (cooking, cleaning and child-rearing may be considered such commodities, but perhaps are inputs?) and differences by age and sex in the degree to which children substitute for the mother in such activities, for example, can be estimated, with important implications for whether such differences are technologically or preferentially determined.

III. The Autarchical Household

In the absence of any labour markets, all production activity takes place in the household, although some household-produced goods may be sold in product markets and other goods purchased. Autarchical households are thus like farm households except that they do not sell or hire labour. The budget constraint characterising households isolated from markets for labour services is thus given by (14):

$$(14) \quad F = V + P_y \Gamma(L_c, L_w, L_h, K) - P_k K = P_x X$$

where the L_i in this case refer only to family labour.

The principal difference between the farm household in a market environment and the autarchical household is that in the latter the value of time is determined not by wage offers but by the household's own collection of complementary production inputs, most of which are also choice variables. Changes in production variables thus affect the time values of family members and alter the allocation of time to household and non-household activities through both income and substitution effects.

Because the price of each individual's time is not determined in the market, the set of exogenous variables affecting behaviour is also much more limited than that in the market model. Indeed, if there are no markets for any production inputs or consumption goods, the exogenous variables appearing on the right-hand side of the household demand equations would include only those pertaining to such factors as innate soil characteristics, weather, and, perhaps, agricultural technology. Put another way, all differences in behaviour between households untouched by markets are due either to differences in preference orderings - tastes - or to these limited environmental factors. The ability to draw policy inferences from estimates of the household demand equations in such settings - where there are no markets - is thus quite limited. Estimation of the production function describing farm production, i.e. (9), would be useful for both measuring the contributions of family members to production and thus their marginal value of time (no longer determined by the market) and for ascertaining which production factors are most substitutable for or complementary with family labour. The latter information would indicate how exogenous changes in such factors might interact with behavioural variables of interest, but in general the application of the neo-classical framework to settings in which markets do not exist yields little information about how households would respond to exogenous changes in their environment simply because of the lack of truly exogenous parameters.

IV. Data Requirements and Estimation Strategies

1. Priorities in Data Collection

It is clear from the above discussion that the central focus of the neo-classical approach to household behaviour is on how the allocation of family resources - time and goods - responds to exogenous events, in particular, price changes and changes in constraints. Thus without cross-sectional or intertemporal

variations in the market conditions facing households, as is true in many data sets collected from a small geographical area, little can be learned about the appropriateness of the theory or about the impact of policy changes. In such data the only presumably exogenous variables varying across households are (full) income and schooling levels, variables whose relationships with levels of household activities either admit to a large variety of interpretations or are not predicted by theory, as was shown. Thus, the prerequisite for understanding household behaviour is data containing one or more "natural" experiments in which households face different conditions - wage rates, prices, restrictions - not influenced by their own choices.

Not only must data be obtained with at least some variation in the exogenous determinants of behaviour, but all such varying exogenous variables must be measured. As was demonstrated, the maximum amount of information concerning both the testing of the neo-classical household model and the derivation of policy-relevant implications comes from the estimation of the demand equations given by (3), each of which contains the same exogenous variables. While not estimating any one or set of equations from the household demand system will not bias in any way the information obtained from those equations that are estimated, the omission of any exogenous variable which varies in the population will lead to biased estimates in all equations. Thus in data collection, it is of primary importance to obtain information on all of the exogenous determinants of behaviour specified to be important by the model utilised, independent of the set of endogenous variables or household activities considered to be of interest by the researcher. However, as was discussed, if the structure of the household production approach is to be exploited and information obtained about household production processes and the contributions of family members to household income, household commodities or services must also be precisely defined and quantified and all relevant household inputs - time, goods - must also be measured, a very expensive and difficult task. Such work, however, is not a substitute for the comprehensive collection of information on the variation in exogenous constraints and opportunities.

One means of augmenting the level of information concerning the responsiveness of household behaviour to exogenous changes in opportunities and constraints is by matching aggregated community level data, such as from a census, to individual household survey data collected over a wide geographical area. If geographical mobility of households is imperfect and conditions are diverse, the impact of governmental programmes - family planning, educational institutions, for example - and labour market structure on household behaviour - fertility, child schooling and employment - can be estimated. The enrichment of detailed household surveys with aggregate, market and programme data represents a promising method of

obtaining policy-relevant inferences from non-experimental data, although the degree to which it can be assumed that the existing geographical distribution of government programmes and services is itself responsive to household demand must ultimately be explored.

2. Population Heterogeneity in "Tastes" and the Redundancy of Simultaneous Equations Techniques

The basic neo-classical framework describes the responses of the household with a given set of preference orderings to (anticipated) changes in prices and resource constraints. In any cross-sectional survey, however, preference orderings will vary across households. As long as such unobserved variation in "tastes" is orthogonal to the sample variation in the exogenous variables, i.e. if such preferences are randomly distributed, unbiased estimates of the set of demand equations (3) derived from the model and thus of relations such as (4) to (7) can be obtained with single-equation multivariate techniques. The estimation procedures utilised would be solely a function of the characteristics of the dependent variables - continuous, discrete, truncated, for example - or of problems associated with sample selection.

The random distribution of unmeasurable preference orderings in a population, or population heterogeneity in tastes, while presenting no great difficulties for the estimation of the set of neo-classical household demand functions, has important implications for the interpretation of the estimated associations between two or more endogenous or choice variables, which have characterised the literature: for example, the association between family size and female employment. Within the context of the model, the population relationship between two choice variables will be a function both of differences in the prices, costs and constraints facing households and of differences in household preference orderings. Consequently, the estimated simple or even partial associations between, say, family size and the labour supply of the wife or children, as long as such variables are subject to choice (given constraints), do not indicate how an exogenous change in fertility will influence labour supply. Such estimates thus cannot indicate, for example, how an increase in the provision of contraceptives or a lowering of the cost of contraceptives would impact on youth or adult female labour supply. Because most interventions by policy-makers constrain behaviour directly or operate on costs and income rather than on preference orderings, at least in the short run, the estimated associations between choice variables would appear of little relevance to policy-makers.

Many researchers have been aware of the problem that the direct relationship between two endogenous variables is

contaminated by taste heterogeneity and thus is of little use in testing theory or in anticipating policy consequences. To obtain estimates of the exogenous impact of a change in one choice variable on another, they have employed simultaneous equations techniques. Indeed, simultaneous equations models of fertility, labour supply and child schooling abound.

Such estimation techniques, however, are unnecessary and potentially misleading tools for analysing household behaviour. First, as was shown, the effect of an exogenous change in a choice variable on another is equal to the ratio of two (compensated) price effects, which can be obtained by estimation of the normal demand equations (3) through the use of single equation methods. The simultaneous equations estimates thus provide no more information than that obtained from the latter equations; they are redundant. Second, to estimate the effect of an exogenous change in one choice variable on another requires that the appropriate price variable be dropped from the second-stage equation, which can be used to identify the equation. The requirement that all exogenous variables be taken into account and their relationships with the choice variables be specified are thus still relevant, although in practice identification has been "achieved" through capricious restrictions on household characteristics; for example, that adult female schooling affects fertility but not female labour supply.

Finally, simultaneous equations estimates of household behaviour are potentially misleading in that the estimates do not directly conform to those needed to predict the effects of policy change. For example, suppose we want to know how an exogenous change in female wage rates W_w will affect the labour supplied by children l^c and that we are presented estimates from an equation such as (15), which is estimated using, say, two-stage least squares:

$$(15)\quad l^c = \alpha_o + \alpha_1 W_c + \alpha_2 W_w + \alpha_3 W_n + \alpha_4 n + \alpha_5 V + \alpha_6 P_x + \alpha_7 P_e$$

where n is the number of children, as opposed to estimates from the household demand function for child labour (16):

$$(16)\quad l^c = \beta_o + \beta_1 W_c + \beta_2 W_w + \beta_3 W_n + \beta_4 P_n + \beta_5 V + \beta_6 P_x + \beta_7 P_e$$

where P_n is the cost of a child (contraceptive costs, etc.).

The wage coefficient in the "structural" equation (15) tells us how the labour supplied by children would change in response to a wage change if fertility remained constant, conditional on constant family size. If, however, in the real world fertility does change and, in particular, responds to wage changes (as implied by the model), then such an estimate is not a good predictor of the actual response of child labour supply. In contrast, the estimate of β_2, from (16) is the unconditional response of the labour supplied by children in households which can freely alter all decisions in response to any change in opportunities, the critical assumption of the neoclassical household model. Moreover, we could compute α_4 from β_4 and from an estimate of the effect of P_n on n derived from the unconditional fertility equation. No additional information would be needed to estimate the relevant demand functions than was required to estimate (15).

V. Application: The Employment and Schooling of Male and Female Youths and the Employment of Women in Rural India

The theme of the previous sections is that joint estimates with single equation methods of the household demand equations such as (3) provide useful estimates both for testing the hypotheses generated by the neo-classical model and for policy. In this section, I apply the basic framework to household data from rural India. I first describe the characteristics of the survey and present descriptive evidence on the activities and economic contributions of children by sex and the characteristics of the labour market. I then report estimates of household demand functions and draw inferences from them regarding the applicability of the model, the inter-relationships of family members with respect to labour supply, and policy.

1. Labour Markets and the Activities and Earnings of Children

(a) The data

The sample used is taken from the third round of a three-year national survey of 4,000 rural Indian households run by the National Council of Applied Economic Research (NCAER) in 1969-71. These data are well suited to applying the neo-classical household model because of (i) the significant variation in economic conditions across India; (ii) the identification of the geographical location of each household, allowing the enrichment of the micro-data with other, market or area-specific variables; (iii) the existence of a "natural" experiment in

which households residing in specified districts were exposed to a governmental programme promoting and facilitating the adoption of the "green revolution" varieties of wheat and rice; and (iv) the richness of both the household and village-level information collected.

Rural India appears to be characterised by a large number of geographically distinct, competitive labour markets (Rosenzweig, 1978). The NCAER data indicate that over 95 per cent of all farm households either buy or sell labour services in the market, and wage rates for children, particularly in such activities as herding and weeding, are reported in the Government of India publication, Agricultural wages in India, for almost all districts in which adult wages are reported. The market model thus appears to be appropriate for examining household behaviour in the rural Indian context. Because the NCAER data do not provide any information on activities within the household, however, I utilise the model described in section II.1 given by (1) and (2), modified to take into account the possibly distinct allocation of resources to male and female children.

(b) Activities and earnings of children

Table 12 reports the mean levels of two non-household activities of children by age and sex and the market wage rates recorded in the data. As can be seen, at every age male children participate more in earnings activities and in school than do female children and earn greater wage rates when employed in the market, although the differences in the latter are significantly less in both proportionate and absolute terms than those observed between male and female adult wages (see below). The difference in school attendance rates by sex are the greatest, with almost 50 per cent of males in the 10-14 age group and only slightly more than one-quarter of females in the 10-14 age group reported to be attending school.[7]

The extent and location of employment by age, sex and landholding status are provided in table 13. These data suggest that differences in the over-all participation of male youth in earnings activities do not differ significantly between farm and non-farm households, but that, presumably because of the availability of work on the family farm, farm boys participate significantly less in the wage labour market than do their counterparts in landless households. Even among male market participants, those from farm households work about 50 to 23 per cent fewer days for wages than non-farm males, with employed, non-farm males aged 11-14 working almost the full year (300 days). For female youth, participation in the wage labour market is almost half that of males in both farm and non-farm households, even though sex differences in total employment rates are only about 25 per cent (table 12). The

Table 12: Daily wages, employment and school attendance rates by age and sex: Children in rural Indian households, 1971

Age group	Boys			Girls		
	Wage (Rs)	Percentage employed	Percentage in school	Wage (Rs)	Percentage employed	Percentage in school
7-8	1.75	1.4	2.6	1.00	0.7	2.2
9-10	1.74	4.6	26.5	0.85	2.3	16.0
11-12	1.65	11.1	48.0	1.31	7.1	28.5
13-14	1.83	19.9	44.0	1.53	16.4	24.8
Mean (10-14)	1.75	12.3	46.3	1.35	9.2	27.1

Source: NCAER Survey, 1969-71.

Table 13: Total employment, market participation rates and mean days worked for pay by age, sex and household landownership: Children in rural Indian households, 1971

Age group	Boys			Girls		
	Percentage employed	Percentage with wages	Wage market days	Percentage employed	Percentage with wages	Wage market days
			Landholding			
7-8	1.3	0.4	0.3	0.7	0	0
9-10	4.6	0.8	1.5	1.9	0.3	0.4
11-12	12.5	2.2	3.7	6.1	1.1	1.8
13-14	20.2	5.1	8.0	18.6	2.7	3.2
			Landless			
7-8	1.7	1.4	1.0	0.5	0.5	.4
9-10	4.7	3.4	5.9	3.1	1.9	3.3
11-12	8.4	6.1	18.3	9.0	6.6	8.8
13-14	19.5	16.4	58.8	11.8	8.4	12.0

Source: NCAER Survey, 1969-71.

number of days worked by female market participants is also about one-half that of males.

The data reported in tables 12 and 13, combined with information on the employment and wage rates of adult males and females, allow rough estimates of the shares of children and other family members in both total family work time and in family earnings. Based on the assumptions that the number of days worked for pay by the landless is approximately equal to the total number of days of employment (own farm plus days in the market) of farm family members and that the family has two girls and two boys, the following shares appear indicated by the data:

	Father	Mother	Children	Total
Shares of total work time	0.55	0.28	0.17	1.00
Earnings shares	0.75	0.19	0.06	1.00

The discrepancies between the time and earnings shares are, given the imputation procedure, due to the differences in the values of time by age and sex set in the market; thus while children contribute 17 per cent of total family work time, their contribution to total household earnings is only 6 per cent because of the lower market value of their time.[8] Note, however, that the economic contribution of offspring to the family over the complete life-cycle will be significantly greater than the average contributions to the family of youths while young, reported here.

2. Variables

(a) Dependent variables

Of the demand equations of the household model, I shall estimate those pertaining to the per-child employment and school enrolment rates of males and female children and the labour supply of the mother. In obtaining measures of the household mean levels of employment and schooling for children within sex groups, it is necessary to consider that such characteristics will differ according to the age-composition of children in the household, as indicated by the age-gradients in yables 12 and 13. To account for these purely compositional phenomena, I employ indirect standardisation to construct sex-specific child employment and schooling indices. These are computed by first imputing what the average, per-child schooling and employment rates in the household would be based on the household's own-children age and sex composition and, in this case,

on the sex and age-specific rates for males from table 12. The ratio of the household's actual rate to its computed rate based on population means thus expresses to what extent the children in the household work or receive schooling relative to population average, normalised by age. The sample mean of the standardised indices for male children is thus approximately one; for females it is somewhat less than one.

(b) Independent variables

The market model highlights the importance of wage rates in household allocative decisions. To compute wage rates for adult males and females in all households, log-wage equations were estimated separately for men and women as functions of schooling level, age, and the presence of the district-level green revolution programme (IADP). The predicted log of wage rates for men and women from these estimates are used in the household demand equations. This procedure was necessitated by the fact that for individuals not employed in the market, no wage rate was recorded in the data, as on larger farms some males work only on their own land and some women do not participate at all in the labour market (54 per cent). This technique, of course, assumes that there are no important systematic (non-random) differences between market participants and non-participants in characteristics not taken into account in the equations (i.e. other than age, sex, schooling, etc.).[9]

Given the relatively low participation rates of children, particularly girls, in the wage labour market, it was impossible to estimate separate male and female child wage rates. Instead, the log of the district-level child wage rate from Agriculture wages in India, 1971 was appended to the survey data. Because there are two types of child dependent variables - male and female - and only one price of child time due to data limitations, the model thus cannot predict what will happen to, say, male or female labour time in response to a wage change, but only what will happen to their sum, as in expression (5).

Of the other right-hand side variables in (3) I have information on the non-earnings income of the household for V, the size of landholdings of farm households, to represent the exogenous farm production variables, and I employ a dummy variable taking on the value of one if the household does not cultivate owned or rented land. No data on the direct (non-time) costs of schooling are available; however, a number of villages do not have any schools. As a proxy for school accessibility, I thus use a dummy variable which takes on the value of one if a village has at least one school. I also utilise a dummy variable indicating whether a household resides in a district exposed to the IADP programme promoting the green revolution techniques. This new technology may have had important effects on both the employment and schooling of

children.

As an illustration of the extent to which cultural variables can be embodied in the economic model of the household, I exploit the geographical information in the survey to look at the effect of two (possibly) non-economic factors - caste and religion - using the district population shares of Muslim women and scheduled castes. By examining the effects of both social variables and the economic factors on family behaviour, one can also ascertain whether one set in a sense "masks" the other or whether both are important in India. With this framework, however, it is difficult to decide whether the influence of such cultural variables on the preferences of the household works through demand-restrictive actions on the part of employers or through the supply side, since the implications for household behaviour, although not the policy implications, would appear to be similar.

Table 14 lists the dependent and independent variables and their associated sample means and standard deviations. The sample consists of households with both the head and spouse present, the mother being less than 55 years old, and at least one child between the ages of 5 and 15 being present.

3. Estimates

Table 15 reports the estimated parameters of the five household demand equations, estimated in linear form. The functional form chosen is arbitrary; the structure of the household demand functions (3) is not given by the general model beyond the specification of the set of right-hand side determinants. If structure were imposed *a priori* on the utility function, it is sometimes possible to obtain mathematically exact functional forms for the household demand equations; the specifications here can be considered as first-order or linear approximations to the unknown equations. All equations are specified in two ways, one specification including and the other excluding the caste and religion variables.

Because the wage variables are in log form and because the child activity variables are normalised around (approximately) one, the wage coefficients are interpretable as elasticity estimates in those equations; that is, they express the percentage or proportional change in child labour supply or schooling due to a proportionate change in a wage rate. In the previous sections, these wage effects were expressed in absolute terms; expressions (4) to (7) can easily be transformed to elasticity form, however, and are given by

$$(17) \qquad \eta_j w_i = \eta_j w_i \quad u = \bar{u} - \gamma_i \varepsilon_j$$

Table 14: Sample means and standard deviations of independent and dependent variables: Rural India, 1971

Variable	Mean	Standard deviation
Standardised enrolment rate - boys	1.01	1.44
Standardised enrolment rate - girls	0.85	1.52
Standardised employment rate - boys	0.90	3.47
Standardised employment rate - girls	0.77	3.02
Female adult (15+) employment rate	0.46	0.49
Child daily wage in agriculture (district level, in rupees)	1.36	0.789
Female daily wage	4.63	0.877
Male daily wage	10.46	1.45
Unearned income	94.48	386.2
Land size (acres)	8.48	12.10
Non-farm household	0.313	0.464
School in village	0.913	0.282
In IADP programme area	0.200	0.400
Percentage of population in district Moslem	7.30	10.8
Percentage of population in district in scheduled castes	14.6	7.89
Number of households	979	

Table 15: Determinants of sex-specific child employment, school enrolment and adult female employment: Rural India, 1971
(t-values in parentheses)

Variable	Standardised child employment rate				Standardised school enrolment rate				Adult female employment rate[3]	
	Boys		Girls		Boys		Girls			
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Child wage[1]	.510	.748	.182	.454	-.262	-.376	-.437	-.486	-.226	-.159
	(1.02)	(1.45)	(0.38)	(0.92)	(1.33)	(1.84)	(2.37)	(2.54)	(3.37)	(2.31)
Female wage[2]	.031	.053	-.861	-.696	-.461	-.375	-.126	-.118	.041	.046
	(0.06)	(0.10)	(1.80)	(1.44)	(2.33)	(1.86)	(0.68)	(0.63)	(0.61)	(0.68)
Male wage[b]	-.906	-1.00	-.221	-.087	.856	.929	.716	.748	-.153	-.184
	(2.61)	(2.82)	(0.66)	(0.26)	(6.27)	(6.65)	(5.59)	(5.64)	(3.29)	(3.90)
Non-earnings income ($\times 10^{-3}$)	-.552	-.474	-.546	-.402	.330	.276	.380	.351	-.128	-.104
	(1.51)	(1.28)	(1.60)	(1.16)	(2.30)	(1.90)	(2.90)	(2.61)	(2.63)	(2.13)
Land size ($\times 10^{-2}$)	-.773	-.909	-.568	-.888	.625	.585	1.63	1.64	-.810	-.203
	(0.77)	(0.90)	(0.59)	(0.93)	(1.58)	(1.48)	(4.40)	(4.41)	(1.34)	(1.52)
Non-farm	.362	.419	.205	.172	-.124	-.083	-.055	-.041	.101	.107
	(1.26)	(1.44)	(0.75)	(0.62)	(1.09)	(0.72)	(0.51)	(0.38)	(2.63)	(2.78)
School presence	.352	.372	.078	.164	.010	.030	.081	.082	-.067	-.066
	(0.87)	(0.92)	(0.22)	(0.46)	(0.07)	(0.19)	(0.59)	(0.59)	(1.24)	(1.22)
IADP	-.322	-.219	-.723	-.623	.332	.256	.403	.375	-.123	-.090
	(1.03)	(0.68)	(2.46)	(2.05)	(2.71)	(2.02)	(3.56)	(3.20)	(2.94)	(2.10)
Moslem	-	-.018	-	-.026	-	-.010	-	0.002	-	-.002
		(1.36)		(2.01)		(1.95)		(0.31)		(1.34)
Caste	-	-.042	-	-.055	-	.008	-	.005	-	-.010
		(2.62)		(3.56)		(1.27)		(0.90)		(4.74)
Intercept	2.57	3.22	2.01	2.79	-.193	-.489	-.756	-.878	.958	1.14
	(4.32)	(4.64)	(3.59)	(4.35)	(0.82)	(1.79)	(3.51)	(3.54)	(11.99)	(12.32)
R^2	.025	.032	.019	.035	.071	.077	.110	.111	.123	.144
F	2.72	2.98	2.10	3.19	8.24	7.31	13.56	11.17		

1 Natural logarithms of district wage rate.

2 Natural logarithms of predicted wage rate; from auxiliary regression. See text.

3 Estimated using maximum likelihood probit.

where η_{jw_i} is the wage elasticity for activity j, γ_i is the share of the contribution of individual i to total family earnings, and ε_j is the relevant income elasticity. Again, the low share of child earnings in family income (6 per cent) suggests that the observed child wage coefficients will be good approximations to the utility-constant elasticities which are needed to test theory. The estimates from table 15, however, suggest that the income elasticities of child employment, child schooling and the mother's labour force participation are all less than 0.05 so that all observed adult wage coefficients (elasticities) are also close to the utility-constant elasticities.

The predictions of the model tend to be confirmed by the coefficient estimates.[10] First, all "own" wage effects are positive - a 10 per cent increase in the child wage rate increases the sum of the male and female children's labour force participation by about 5 per cent; a 10 per cent rise in the adult female wage increases her participation rate by 1 per cent. Second, the signs of the cross-wage elasticities are the same - a rise in the adult female wage lowers the total labour supplied by children; a rise in the child wage similarly lowers the labour force participation of the mother.

Sex differences in behavioural responses of children are evident. An F-test rejects the hypothesis that the sets of coefficients in the sex-specific employment and schooling equations are the same. Moreover, a rise in the adult female wage reduces the work time of female children significantly more than it reduces that of male children - the coefficients suggest that a 10 per cent rise in the adult female wage would result in a 7 to 9 per cent drop in the time supplied by female children. However, a rise in the adult male wage by 10 per cent is associated with a 9 to 10 per cent fall in the labour force participation of male children, with only a slight drop for female children. Mothers and female children thus appear to be closer substitutes than mothers and male children with respect to total non-earnings time (home/school time); the opposite is true for fathers and female children.

While, as was indicated, the model cannot predict how any one particular time use not allocated to earnings activities will respond to a wage change, the results suggest that a rise in the wage rates paid to children reduces their time in school - a 10 per cent increase in the child wage appears to reduce the attendance rates of boys by from 2.6 to 3.8 per cent and that of girls by 4.4 to 4.9 per cent. More interestingly, a rise in the mother's wage also reduces school attendance rates, particularly for male children - a rise in the adult female wage by 10 per cent reduces the attendance of boys by from 3.8 to 4.6 per cent and that of girls by about 1 per cent. In contrast, a 10 per cent rise in the wage of the father increases attendance rates by from 7.2 to 9.3 per cent for children of each sex.

Time spent in the home by children of either sex thus appears to be much more substitutable with the household time of the mother than that of the father.[11]

Two policy implications are suggested by these wage results. First, the estimates suggest that attempts to encourage the employment of women would increase the time spent by children, particularly female children, in the home by lowering both their participation in earnings activities (girls) or their time in school (boys). Second, legislated proscriptions on child labour would tend to increase school attendance rates but would also induce greater participation in market work by adult women and by adult males.

Of the other variables, land size and farm status appear to have effects which correspond in sign to those of non-earnings income, as expected, but are only statistically significant in a few equations. The school presence variable, perhaps because less than 10 per cent of sample villages were without an educational institution, appears to have little relationship to school attendance or other activities of children.[12] While more precise measures of the direct costs of schooling may be needed, the results appear to suggest that the most important costs of schooling in terms of behaviour are those related to the market earnings potential of children.

Of significant policy interest is the evidently strong impact of the IADP programme on the activities of children. The estimates suggest that where this programme promoting new agricultural technologies was put in place (approximately seven to ten years prior to the survey date), female children work from 60 to 70 per cent less and exhibit school attendance rates which are from 38 to 40 per cent higher than average. Similarly, boys work approximately 30 per cent less and have attendance rates about 26 to 30 per cent above the mean in IADP programme districts, controlling for wages, income, land size, etc. While it would be tempting to conclude from these results that agricultural technical change associated with the green revolution (or change per se) was complementary to schooling, it is possible that the programme was introduced in areas where schooling rates tended already to be high. Attempts to control for district-level schooling attainment prior to the introduction of the programme, however, only slightly reduced the estimated programme impacts reported.[13] Further work is needed to ascertain if rates of return to schooling rose in IADP areas, as the high levels of school attendance in those districts suggest.

Finally, the introduction of the religion and caste variables in the household demand equations tends generally to strengthen the magnitude of the wage effects, where statistically significant; the results do not appear particularly sensitive to the inclusion of such variables. However, both cultural variables appear to be significantly associated with the labour

force participation of adult women and children - in districts where Muslims and scheduled caste members are more prevalent, adult women and children of both sexes tend to work less, with school enrolment rates only marginally affected.

V. Conclusions

In this chapter, I have discussed the applicability and usefulness of the neo-classical theory of the household for studying the employment and other activities of children as well as other family-related phenomena. The advantages of the household models described are that they yield rejectable hypotheses, and thus are amenable to verification with minimal sets of assumptions, and provide, when properly applied to data, information of relevance to policy-makers. While the neo-classical approach represents a basic framework which is adaptable to the settings to which it is applied, it is clearly most valuable where markets for labour and other goods are operating, where prices are readily observed and are exogenous to the behaviour of individual households. In such environments, it is possible to estimate the parameters of the model which are most useful for purposes of testing and policy, namely, price and income effects.

More work may be needed on developing testable hypotheses from the basic model adapted to settings in which markets operate imperfectly or which take into account costs of information and mobility as well, perhaps, as market power. It should be noted, however, that few studies have attempted to test or apply the basic framework with appropriate estimation techniques applied to data containing true, exogenous variation in prices. In the application here, to rural Indian household data, the estimates appeared to conform to the implications of the model and appeared to yield a number of insights into the sensitivity of the household and non-household activities of youths to the labour market conditions of adults, as well as sex-difference in the behaviour of children in such activities as schooling and labour-force participation.

Finally, it should be emphasised that the approaches discussed are concerned with only one side of market phenomena - the supply side. To understand fully the implications and consequences of policy interventions on income distribution and employment, it is also necessary to examine the behaviour of employers - the demand side - and to integrate both demand and supply behaviour in a general equilibrium framework. Presumably, the development of models of the employment of children and other workers by employers and their application to appropriate data will yield information on this dimension of the role of children in the economy.

Notes

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1 See O. Ashenfelter and J. Heckman: "The estimation of income and substitution effects in a model of family labor supply", in Econometrica, May 1974.

2 The models developed below are silent on life-cycle aspects. For examples of how the basic static framework can be adopted to examine household decisions over time, see Rosenzweig and Wolpin (1980b) and M. Rosenzweig: "Educational subsidy, agricultural development and fertility change", in American Economic Review, Apr. 1979.

3 The implications of the model are essentially unchanged when such a child welfare function is explicitly introduced. The framework can be extended to take into account income distribution changes over generations by incorporating the welfare of all future generations (functions of, say, goods consumption, family size, schooling, etc.) into the current-generation household utility function. See G. Becker and N. Tomes: "An equilibrium theory of the distribution of income and intergenerational mobility", in Journal of Political Economy, Dec. 1979.

4 While total consumption must increase when full income rises (not all goods can be negatively related to income), the way in which expenditures on goods change as total resources increase is a function solely of the unobserved preferences of the household, about which the economist makes few assumptions.

5 Rosenzweig and Wolpin (1980a, 1980b).

6 G. Becker: "A theory of the allocation of time", in Economic Journal, Sep. 1965.

7 These data were computed from answers to a survey question on the "principal activity" of the person as wage earner, family worker, student, etc. The statistics in table 12 may thus underestimate the extent to which children engage in any earning activities. I have chosen to assume that if a child's principal activity is as a student, he or she is attending school on a regular basis. The attendance figures may thus

be lower than corresponding enrolment rates for this population.

[8] The latter figure may be an upper bound estimate since the imputations on the value of labour contributions assume that the hours per working day are similar for children and adults.

[9] For a discussion of the problems associated with estimating values of time by this method and an alternative procedure which takes into account some aspects of possibly non-random selectivity, see J. Heckman: "Shadow wages, market wages and labor supply", in Econometrica, July 1974.

[10] The reader should keep in mind two major caveats to these results, beyond those already indicated. First, it must be assumed that no exogenous variable (health conditions, for example) that is significantly correlated with the dependent variable and the included exogenous regressors is omitted from the analysis. Second, it is assumed that the geographical distribution of the district and village level variables is unrelated to the behaviour of the individual households; the causation runs only one way with respect to these areal variables. On this latter point see below.

[11] In a paper employing a similar framework applied to 1961 Indian district-level data, Rosenzweig and Evenson (1977) obtained results which conform to those presented here with respect to the effects of the child wage and the adult wage-employment relationships. However, their estimates suggested a positive, partial association between the agricultural adult female wage and school enrolment rates of children. They also found that adult male agricultural wage rates and school enrolment were negatively associated. While neither of these latter findings contradicts the model, the discrepancies between the findings clearly call for additional investigation. A major difference in the empirical specifications is the use, because of data limitations, of both agricultural wage rates and adult educational attainment variables as regressors in the 1977 study, rather than predicted wage rates pertaining to all rural activities based on educational attainment (and other variables) as here. In the case of the male wage and education effects in the 1961 aggregate results, male adult schooling and male agricultural wage rates had opposite effects on the school enrolment rates of male children. Because of the necessity of employing predicted wage rates for a large number of households in the 1971 data, it is not possible to check rigorously whether these differences in specification could reconcile the results. Such differences may also indicate an aggregation problem with the

1961 data, an unexplained (by the model) shift in parameters between 1961 and 1971, omitted variables bias or, of course, some deficiency in the model.

[12] Estimates obtained from the subsample of households residing in villages having primary schools were not significantly different from those reported here.

[13] For a fuller discussion of the procedures used to account for the problems created by programme placement choice, see Rosenzweig, op. cit., 1979. Results from a logit regression run across Indian districts suggested that districts chosen for IADP were characterised in 1961 by somewhat greater levels of rural industrialisation, lower average farm size and somewhat lower agricultural productivity. Landholding inequality, literacy and enrolment rates did not differ significantly between districts subsequently selected for IADP and other districts represented in the NCAER data.

Chapter 9

Labour Market Structure and Reproductive Behaviour in Rural South Asia

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I. Introduction

In the low-income, dominantly rural societies of south Asia, the landless and near landless form a sizeable and growing proportion of the total population. For example, in rural Bangladesh, a 1977 survey indicated that 33 per cent of all households owned no arable land, and 48 per cent were either landless or owned half an acre or less.[1] For India, one source reported that, in 1971, 40 per cent of all rural households were either landless or owned less than half an acre.[2] For these elements of the rural population, who depend completely or primarily on wage employment for their subsistence, the structure of the labour market is of central importance to current welfare and future prospects. The structure of the labour market encompasses the process of wage determination and the distribution of employment opportunities, the degree of job and real wage security and the degree and basis of market segmentation and wage discrimination.

In the literature on the determinants of fertility in developing countries, treatment of the economic value of children has been largely divorced from consideration of the institutional context in which that "value" is generated - and for the landless this means the labour market. In this chapter we argue that one cannot adequately evaluate the economic value of children or its implications for reproductive behaviour among the poor, without reference to the broader context of labour market structure. In addition to determining the employment opportunities and wages of children, the structure of the labour market can in a number of different ways either increase or diminish the need of parents for the economic contributions of children. The potential effects of labour market structure are such that the same net return for child labour may have an entirely different significance for reproductive behaviour, depending on the setting. In the next section we review several theories that have been developed to characterise labour markets in rural south Asia, and use this review to illustrate the various dimensions along which market structure can influence fertility behaviour, and the varying effects of different

market structures. Subsequently we present a detailed analysis of the wage labour market in one locality of rural Bangladesh, in which we test the theories reviewed earlier and develop our own characterisation of labour market structure for that area. The concluding section discusses the implications of the analysis for child labour and wages, and incentives for fertility in rural Bangladesh. An earlier paper documented the economic activities of children in rural Bangladesh and concluded that male children in particular provided substantial labour inputs - sufficient, perhaps, to justify high fertility (Cain, 1977a). We shall not, therefore, dwell at length on the economic activities of children in this paper, but rather shall focus on the independent role of market structure in mediating the significance of child labour for reproductive behaviour.

II. Implications of Market Structure for Child Labour and Fertility

There is little agreement about the essentials of labour market structure in rural south Asia. The literature provides widely different descriptions of rural labour mechanisms for the same geographical area - ranging, for example, from freely competitive market models to models in which non-economic factors determine employment and wages. Theory construction has in fact completely outstripped the collection of data that could resolve many of the current debates. Competing theories of rural employment and wages are variously grounded in detailed case studies of wage and employment contracts in a single small locality, household employment surveys, and district-level data from censuses and similar sources. With respect to the determination of returns to child labour, constraints on the opportunities for child employment, parental dependence on child labour, and changes in these variables over time, the structure of rural labour markets is of central importance.

A sampling of theories of labour markets that have emerged from work in India will serve to illustrate the implications of various market structures for the economic value of children and hence, by inference, for reproductive behaviour. Theories will be assessed according to what they have to say about (1) the criteria of wage determination, particularly whether or not the system yields a family subsistence wage, (2) real wages under conditions of a growing labour force and stagnant production, (3) market segmentation, job rationing and wage discrimination, and (4) risk and uncertainty.

1. Family versus Individual Wage

A distinction can be made between theories in which rural wages are related to the family subsistence needs of hired

labourers and those in which wages are independent of such needs. The two approaches have different implications for fertility. Among the theories that have proposed that wages in the rural sector are tied to subsistence needs, the most familiar is the surplus labour model of Lewis, later elaborated by Fei and Ranis.[3] In their model, the rural sector was characterised by surplus labour, with zero marginal productivity and an infinitely elastic supply curve. The model posited a constant subsistence wage in the rural sector determined not by market forces (which would dictate a wage rate of zero) but by "institutional forces" - an unspecified "nexus of non-economic mores and relationships". Fei and Ranis were not particularly interested in the detailed workings of the traditional rural sector, but felt confident in assuming the existence of a "redundant" agricultural labour force in countries such as contemporary India and a constant institutional wage. For a variety of reasons, including its assumptions regarding the level of wages and the process of wage determination in the rural sector, this model, which once represented development orthodoxy, is not longer widely accepted.[4]

Fei and Ranis saw agricultural wages as governed by non-economic factors. In contrast, Rodgers argues that in low-income, low-wage settings, employers may be obliged to pay a wage that approximates the rate minimally required for family subsistence, not because of any moral imperative, but because in doing so they minimise the cost of work units.[5] The argument is based on the notion that if time wage rates (hourly, daily, etc.) decline past a certain point, the cost of work units (chunks of work done) will begin to rise as nutritional deficiency lowers work output per unit of time. Rodgers refers to the critical point as the "efficiency wage", the wage required to keep the labour force, as a whole, alive and capable of working. Thus, in situations of "excess labour supply", one would expect time wage constancy at the efficiency level. Rodgers presents evidence from the Kosi area of northern Bihar that gives some support to the efficiency wage theory; in a majority of villages observed, he found wage stability over the year despite marked seasonal fluctuation in agricultural labour demand; wage rates were positively correlated with labouring dependency ratios, and wage rates were inversely related to village employment levels.

With regard to the reproductive behaviour of landless households, a major implication of both the constant institutional wage and the nutritionally based efficiency wage hypothesis is that economic arguments in fertility decisions - including the costliness or productivity of children - become somewhat superfluous. The wages of a single child do not affect family income, which is "fixed" at the subsistence level. In a situation where wages are set in order to maintain a constant level of per head consumption across households, individual wage

rates will, other things being equal, tend to vary inversely with the ratio of earners to dependents in the individual's household. By inference therefore, if, as children in a particular household mature, their labour income increases, any net gain would be forfeited.[6]

In contrast to subsistence wage theories is the competitive market model, in which the criterion of wage determination is the marginal product of labour and individual workers are impersonally evaluated according to their ability to perform work, irrespective of household membership of family subsistence needs. Rosenzweig has recently argued that such a model applies generally to rural India, with the relatively minor qualification that the geographical mobility of labour is restricted.[7] He formulates a neo-classical general equilibrium model of agricultural wage determination and, in an econometric exercise employing district-level data from India, claims support for his model's predictions. In a world of competitive markets, the limits to the earnings of children in landless households are set by the physical maturity of the child and conditions of aggregate labour supply and demand. Regardless of whether on balance children yield a net positive or negative return, parents will be attuned to the summary signal that is forthcoming and can be expected to adjust their reproductive behaviour accordingly. Subsistence guarantees do not in this instance block the signals.

Other conceptions of rural labour markets in south Asia fall somewhere in between these two extremes on the question of family versus individual wage systems, but are usually more closely aligned with one or the other, with similar implications with respect to the salience of child labour for the welfare of landless households and reproductive behaviour of parents. For example, Bardhan, who is critical of both family subsistence wage theories and the competitive market model on empirical grounds, and who formulates a model for West Bengal that incorporates employer monopsony power, is nevertheless in agreement with Rosenzweig on the issue of family versus individual wage determination.[8] On the other hand, analysts who perceive the existence of feudal production relations in rural India are aligned more closely with the subsistence wage theorists.[9] Despite the exploitation and coercion that feudal relations entail, they also presume certain obligations on the part of the "lord" - at a minimum, the assurance of subsistence for attached labourers.

2. Real Wage Levels and Returns to Child Labour

Among the class of the rural population that is landless or without capital, the contributions that children can make to household income depend largely on the wages (and employment) they can command. Labour market structure will determine the

response of wage rates, if any, to changing labour demand and supply conditions. If labour supply and demand conditions and market structure produce downward pressure on real wages, the productivity of children can, as a direct result, decline to the point where they become net burdens to parents.

In an earlier paper, we estimated for one rural area of Bangladesh - given the age profiles of wage rates, productive work time inputs and consumption - that male children of the landless became net producers by the age of 12 (at least) and by the age of 15 could be expected to have produced enough to compensate for their cumulative consumption up to that age. In their survey of population and development prospects for Bangladesh, Arthur and McNicoll (1978) observe that in Bangladesh a fall in the birth rate would be likely, for both voluntary and involuntary reasons, to accompany further deterioration of rural economic conditions. The involuntary factors contributing to such a decline might include worsening health status, increasing physical separation of couples due to labour migration, and the disintegration of stable family life. Additional voluntary pressure could result from declining real wages, creating a situation in which "children ... cease to be a paying proposition". Arthur and McNicoll, using the data on which our calculation of the net productivity of children in 1977 was based, estimate that this would happen if real wages fell by 30 per cent.

What are the prospects for such a decline in real wages in very poor rural settings, where wage labour income is already somewhere close to "subsistence level"? The competitive market model of Rosenzweig is fairly clear about this: wages are fully flexible downward. The situation envisaged by Arthur and McNicoll for rural Bangladesh is quite conceivable if the labour force continues to grow at a rate exceeding that of aggregate labour demand. The subsistence wage model of Fei and Ranis, of course, does not allow for a decline in the real wage beneath the institutionally determined subsistence level. Rodgers' nutritionally determined efficiency wage floor is achieved only after market forces have pushed wages down to such an extent that the work efficiency of wage labourers is threatened by malnutrition. Once this happens, Rodgers' model yields a result similar to that of Fei and Ranis: a constant real wage. As mentioned before, however, in the case of both Rodgers and Fei and Ranis, the guarantee inherent in a family wage system mutes the significance (for reproductive decisions) of what happens to the wages of children *per se*.

Quite apart from the self-serving interests of employers in maintaining a healthy pool of wage labourers, there is another potential source of resistance to downward wage flexibility that is not explicitly dealt with by the economic theories considered thus far: collective action by labourers themselves. Scott argues that the right to subsistence, under conditions of

persistent uncertainty, attains a moral force that can result in spontaneous peasant rebellions when serious threats to subsistence are experienced.[10] While the rebellions that Scott analysed pit tenants against landlords or the State, the potential for violence, the underlying fears of population subgroups at risk and the ethic that lends moral force to collective action are none the less present in agrarian societies where wage labourers confront employers.

The most evident example of successful collective action by wage labour in rural India is the agricultural trade union movement in the state of Kerala that has effectively prevented declines in income and employment among landless labourers.[11] The existence of other less formal kinds of collective action by landless labourers in rural south Asia remains largely a matter of speculation. However, it is important to note that even if no explicit action is taken by labourers, the implicit threat of strikes or violence may influence the bargaining or wage-setting behaviour of employers, and act as a brake to wage declines induced by market forces alone.

Returning to our example from Bangladesh, we can see that the future course of real wages depends very much on labour market structure (taken to include the relative bargaining power of participants) and, without more information, is not predictable, even in the event of continued growth in the labour force combined with stagnant production. Assuming that we are dealing with a system in which family subsistence is not guaranteed, then the possibilities range from completely flexible wages of unfettered competitive markets to considerable wage rigidity in situations in which the collective power of labour is great. With respect to implications for reproductive behaviour, the prospects that children "will cease to be a paying proposition" are more likely in the former case than in the latter.

3. Market Segmentation: Job Rationing and Wage Discrimination

There are a number of ways in which labour market segmentation can affect both the actual productivity of children and the reproductive responsiveness of parents to their productivity.

First, consider the proposition of Rodgers and Standing in Chapter 1 of this volume that children, because of their immaturity and vulnerability, are particularly susceptible to exploitation and wage discrimination (e.g. p. 18).[12] They seem to be thinking primarily of child employment in small-scale industries, but also suggest that agricultural counterparts exist. Other things being equal, the effects of such wage discrimination would be to reduce the potential returns to child labour.

Another form of market segmentation with implications for child productivity that seems to be evident to a varying extent in south Asia is segmentation by sex. In an analysis of women's market work in rural Bangladesh, for example, we concluded that the complete exclusion of women from a large range of wage employment opportunities constituted a clear, if extreme, case of market segmentation (Cain, Khanam and Nahar, 1979). In rural Bangladesh, the exclusion of women and the degree of market segmentation by sex goes considerably beyond what might be explained by a simple accommodation of child-bearing and child-rearing roles, and applies equally to married and unmarried women, the childless, the young and the old. Regardless of cause, this sex-segmented market structure sharply limits the productive employment opportunities of female children. The implications for reproductive behaviour are less clear. On the one hand, for a particular household, the total labour income of children at a given level of fertility will be less than otherwise. On the other hand, if parents require a fixed minimum amount of economic input from their children (whether in the form of labour, risk insurance, support in old age, or a combination of these), then in situations where male children alone can provide these inputs, the positive incentive for fertility will tend to be higher than otherwise.

Incentives for high fertility may be created by systems of male dominance and the associated segmented labour market, independent of factors relating to the returns to child labour. The more dependent women are, the less able they are to subsist on their own, and the more important it becomes for them to establish reliable sources of support on which they can depend in the event, for example, that a husband dies. Other things being equal, the procurement of sons will be of more vital concern to more dependent women.[13]

Bardhan presents a theory of wages and unemployment for rural India that is essentially one of segmented labour markets. As a point of departure, he notes that subsistence wage theories are called into question by evidence that wages in rural India are responsive to changes in demand and productivity. At the same time, the competitive (marginal productivity) market model is unsatisfactory to Bardhan because it fails to explain the persistence of substantial amounts of involuntary unemployment among poor rural labourers. In competitive markets, wages should be sufficiently flexible to clear the market. Equally important, Bardhan maintains that these theories fail to take account of the monopsonistic (or oligopsonistic) power enjoyed by employers - a power deriving from land concentration, limited labour mobility, and limited employment opportunities outside of agriculture. Finally, Bardhan suggests that employers place a high premium on the ready availability of labour, due to sharply peaking seasonal labour demand and the critical importance of proper timing of labour

inputs, ignored by conventional theories.

Bardhan specifies a model in which employers have some monopsony power and labour recruitment costs affect profits. Recruitment costs are a declining function of unemployment (it is easier to recruit labour in a slack market) and an increasing function of various factors constraining recruitment. In order to maximise profit, an employer acts to set wages and the level of unemployment such that "the rise in the direct cost of labour following an increase in the wage rate should at the optimum be just equal to the fall in recruitment cost [from] increased unemployment". When wages are increased while employment is held constant, unemployment increases as new workers are induced to enter the labour force. Bardhan's model is consistent with both a non-zero level of involuntary unemployment and a positive association between casual wage rates and labour demand factors, both of which are found in data he presents from West Bengal.

The model predicts that wages and unemployment will vary in the casual labour force according to the recruitment costs associated with particular types of labour. In a regression analysis Bardhan finds that in West Bengal women tended to receive lower daily agricultural wage rates. He argues that women are irregular suppliers of labour because of their need to co-ordinate outside work with household responsibility, and therefore their recruitment costs are higher and their wage rates lower.

While Bardhan does not discuss children as a special group, his model also predicts that wages will vary directly with the elasticity of labour supply, a familiar result, he notes, of discriminating monopsony. He argues that this accounts for the empirical finding that lower-caste workers receive lower wages. But it would also lead one to expect lower wages (holding work efficiency constant) for children (assuming, that is, that children are characterised by relatively inelastic labour supply curves).

Bardhan's theory has other implications that can be tested. One such implication is that in their attempts to minimise recruitment costs, employers can be expected to enter into long-term contracts with labourers, in addition to manipulating wages and unemployment. The contract might involve continuous employment for a month or year (attached labour), or an arrangement whereby employers offer employment at a relatively high wage in the slack season, with the understanding that the labourer is committed to working for the same employer in the busy season (tied labour).

4. Risk and Uncertainty

Most discussions of attitudes toward risk in peasant societies have focused on cultivators' behaviour with respect to

the adoption of new technologies.[14] It is argued that cultivators who operate close to the margin of subsistence will evaluate a new technology not only according to its potential effects on average crop yields, but also on the basis of its year-to-year reliability. Governed by a "safety first" principle, cultivators will rationally reject a technology that promises a higher yield if it also increases the risk of crop failure. The poorer the cultivator, the more averse to risk he will be.

A landless labourer should be no less preoccupied with subsistence than the poor cultivator, and no less averse to risk. The labourer's problem is how to ensure a steady stream of income from participation in a labour market that can entail, to a varying degree, uncertainty in finding employment on a given day, or for more extended period, and uncertain wage rates. The uncertainty may depend not only on underlying demand factors (for example, extended unemployment created by harvest failure), but also on structural features of the market. For example, wide fluctuations in wages, and thus wage uncertainty, are likely to be less in markets where agricultural labour unions are active than where they are not. According to Bardhan's conception, the amplitude of seasonal wage swings will be less and the certainty of year-round employment will be greater than in purely competitive markets because of employers' concerns about recruitment costs and their response of "labour tying". With market uncertainty and the associated risk of interrupted income streams, the labourer faces a problem similar to that of the financial manager of a mutual fund. The financial manager will seek to diversify his investment portfolio in order to spread risk and minimise the effect on the over-all rate of return of failure by any single investment. The head of a labouring household can spread risk and help to ensure a steady income stream in a similar fashion by increasing the number of labour market participants in his household. Therefore, if the total net returns to labour are on average the same with one or many household participants (i.e. if the net economic value of children is zero), landless parents will still have a positive economic incentive to have many children. Indeed, much as a small cultivator may reject a high-yielding technology in favour of a lower-yielding but more reliable one, a landless household may prefer to have numerous children even when the net return on their labour is negative, because the risk of prolonged interruption of income streams is thereby minimised.

5. Summary

The preceding review makes it clear that in order to understand the constraints to child productivity among the poor, to assess the reproductive implications of child

employment and income, or to gauge the potential for change in the returns to child labour in the future, we must have a grasp of the processes by which wages and employment are determined. The ways in which labour market structure can affect reproductive behaviour can be summarised as follows.

First, labour market structure can affect the relevance or salience of the costs and benefits of children to fertility decisions. Certain market structures yield a family subsistence wage, such that the net earnings of a child (or any other household member) will not affect household welfare (per head consumption within a household). In contrast, in a purely competitive market, individual workers are impersonally evaluated according to their ability to perform work, irrespective of family subsistence needs; and the criterion of wage determination is the marginal product of labour. In this case, the net contributions of children, and thus fertility, will directly affect household welfare.

Second, labour market structure will determine the degree of downward wage rigidity or flexibility, and, in low-wage settings, where downward pressure on wages is exerted by a labour force growing more rapidly than labour demand, will influence when and if children become net burdens purely as a result of declining wages. Projections of wages are not straightforward, and as wages decline to a point where they threaten the subsistence of the landless, sources of resistance to further declines may be encountered. One source of resistance suggested in the literature is the self-interest of employers in maintaining an efficient and minimally healthy workforce. Quite apart from the self-interest of employers, however, resistance may come from the labourers themselves, through some form of collective action.

Third, market segmentation can directly affect the returns to child labour (if children suffer wage discrimination or if the market is segregated by sex in such a way as to constrain the opportunities of female children); and it can create demand for children by rendering women dependent on men for support (also a result of male dominance and sex-segregated markets).

Fourth, labour market structure creates or diminishes fertility incentives depending on the degree of employment and wage uncertainty inherent in a particular structure. In the face of uncertainty and the associated risk of interrupted income streams, the head of a labouring household may be encouraged to maximise the number of labour market participants in his household. He will do so for much the same reason as an investment banker will seek to diversity his investment portfolio in order to minimise the effects of a failure by any one investment on the over-all rate of return. Much like the poor, risk-averse farmer, who may reject a high-yielding technology in favour of a lower-yielding but more reliable one, landless parents may prefer to have many children even if

the net return on child labour is negative, if the risk of prolonged interruption in income streams is thereby minimised.

Note that many of the structural effects that have been discussed operate indirectly to affect reproductive incentives rather than directly on the wages and employment of children per se. Therefore, in pursuit of the determinants of fertility, it is as important to assess the general features of labour market structure as it is, for example, to find out whether or not children as a group comprise an exploited segment in the labour market, receiving unusually low wages as a consequence.

A comment on the reasonable limits to generalisation in the area of wage and employment determination in south Asia will serve as a useful introduction to the detailed empirical analysis that follows. With due respect for the efforts of some theorists (Rosenzweig, for example) to capture the essence of rural labour markets in India in a single parsimonious model, the fragmentary evidence that does exist suggests that this is not possible.[15] Instead, it is most likely that labour market structure varies in important ways by geographical region.

The remainder of this chapter is devoted to an analysis of agricultural labour market characteristics and their implications for child productivity and reproductive behaviour among the landless and near landless in one locality of rural Bangladesh. Char Gopalpur, a village in Mymensingh District, was studied continuously between 1976 and early 1978, with a brief follow-up visit in the autumn of 1979. The limited scale of the area studied is in part compensated by an unusually rich body of data that we can draw upon to analyse various aspects of labour market structure. The data, which include longitudinal records of time use and the results of a number of agricultural labour surveys linked to data from a village census, are described in more detail in the annex to this chapter.

III. Land and Labour in Char Gopalpur: An Overview

The existence of monopsonistic or oligopsonistic power in labour markets or of other phenomena, such as interlinked factor markets,[16] which enable an employer to set wages and other terms of employment contracts, presupposes a number of structural conditions regarding the concentration of land holdings, mobility of labour, and alternatives to agricultural wage employment in a locality. If arable land is dispersed among many owners, labour is highly mobile (geographically) and ready alternatives to local agricultural wage employment exist, monopsonistic markets are unlikely to pertain. In this section we examine structural preconditions such as these in the village of Char Gopalpur.

1. Land Distribution

Although land in the village is unequally distributed, with 33 per cent of all households having title to no arable land, there is no single dominant landowner or even a small dominant group of owners. The distribution of arable land owned de facto and operational holdings in Char Gopalpur is shown in table 16. De facto land ownership is land for which title is held, adjusted for mortgaged land. When land transfers through mortgage are accounted for, the proportion of landless households increases to 35 per cent. Note that almost half of the land-owning households in the village own less than 1.5 acres of arable land, and just over 80 per cent own 5 acres or less. Among the owners in the largest category (12.5 acres or more), the household with the greatest acreage owns 23 acres, only 3 per cent of the 711 total acres of arable land owned in the village. As a group, the nine largest landowners control 148 acres, 21 per cent of all village lands - a questionable base for oligopsonistic control.

The distribution of ownership actually exaggerates the degree of land concentration among potential employers, because for operational purposes land is further redistributed through share tenancies (there are no fixed rent tenancies in the village). When land owned de facto is adjusted for land sharecropped in and out (which gives operational holdings), the degree of land concentration at the top is less. Table 16 shows that only 2 per cent of cultivators are in the 12.5+ acre category compared with 4 per cent of owners. The nine largest operators hold only 117 acres, or 16 per cent of all village lands.

2. Interlinked Factor Markets

The village pattern of land transfer through share tenancies has important implications for the issue of interlinked factor markets - another potential source of power for employers. Contrary to what one might suppose, the majority of transfers through share tenancy occurs within the class of landowners. There were 110 households in the village that operated land under share tenancies, of which only seven owned no land of their own. It has been suggested that large landowners may gain leverage in the labour market by rationing share tenancies among the landless.[17] This clearly cannot be the case in Char Gopalpur. Second, the total area of land under share tenancies is 144 acres, which, split between 100 households, means that the amount of land involved in any one transaction is relatively small. Third, large owners are at least as likely to sharecrop as small owners. We found, for example, that while 30 per cent of households owning less than 1 acre sharecropped some land, 40 per cent of those owning 3

Table 16: Distribution of households by land owned and operational holdings, Char Gopalpur, 1976

Area (in acres)	Land owned *de facto*[1]			Operational holdings[2]		
	N	% of land-owning households	% of all households	N	% of land-owning households	% of all households
Under 1.5	96	43	28	61	30	18
1.5 - 2.4	42	19	12	33	16	10
2.5 - 4.9	42	19	12	62	31	18
5.0 - 7.4	21	9	6	27	13	8
7.5 - 12.4	13	6	4	15	7	4
12.5+	9	4	3	4	2	1
Landless	120	-	35	141	-	41
Total	343	100	100	343	99	100

[1] Land owned *de facto* is land for which title is held, adjusted for land given out or taken in under usufruct mortgage.

[2] Operational holding is land owned *de facto*, adjusted for land given out or taken in under share tenancy.

Source: Village census.

or more acres were sharecroppers.

Other possible sources of employer leverage in the labour market include credit and product monopolies. The absence of dominant landowners makes such leverage less likely, and indeed these potential sources of leverage do not seem to play an important role in Char Gopalpur. There are few active product markets in the village itself, and the landless (along with other villagers) purchase grain and other necessities from a bazaar several miles distant. There are no substantial grain traders in the village. Credit transactions defy simple description. Some landless families become heavily indebted to landed families for which they occasionally work; however, such instances are uncommon. The majority of large credit transactions occur, once again, within the landed class, through usufruct mortgage. The landless must rely on a variety of credit sources, including friends and relatives; they usually borrow very small amounts in a single transaction, frequently without interest. More often than not, they are not able to borrow anything from anyone.

3. Labour Mobility

One of the characteristics of both feudal (or "semi-feudal") modes of production and monopsonistic labour markets is that restrictions may be placed on the mobility of labour.[18] Labour mobility can, however, be affected by purely locational factors, which either reinforce or undercut the power possessed by employers. Mobility assumptions figure in each of the theories we reviewed earlier: Bardhan assumes that labour mobility is constrained and Rosenzweig's major concession to market imperfection in rural India is the limited interdistrict mobility of labour. In Rodgers' model of the labour market in Kosi, the immobility of labour is a strong implicit assumption: it is difficult to imagine employers counting heads of labouring families in order to calculate appropriate efficiency wages in areas where labour markets are not isolated and self-contained and where there are substantial flows of labour migration.

The area in which Char Gopalpur is located is characterised by a high degree of labour mobility (at least among male labourers). Among landless or near landless males (aged 13 or greater) for which we recorded time use data throughout 1977, almost 20 per cent of the days in which they were employed in some form of market work were spent sufficiently distant from the village to require an overnight absence (table 17). Considering all recorded instances of casual male wage employment, regardless of age of worker and excluding cases of overnight absence, labourers were employed by persons living in Char Gopalpur only 50 per cent of the time. In the remaining days, labourers living in Char Gopalpur found wage employment in neighbouring villages, at the nearest market or river ferry

landing, public works projects, or in Mymensingh town, which is about 5 miles away. The flow of labour is not exclusively away from the village. A substantial proportion of the agricultural wage labour employed in the village is drawn from the outside. Surveys of agricultural labour that we conducted indicate, for example, that 29 per cent of all amon paddy harvest hired labour, 73 per cent of boro paddy harvest labour, 70 per cent of weeding labour, and 25 per cent of jute stripping labour came from outside Char Gopalpur.

4. Alternative to Agricultural Wage Employment

Just as labour mobility may undercut the power of employers in a rural area, so, other things being equal, may the presence of alternatives to agricultural wage employment. The role of non-agricultural employment and self-employment in rural areas of south Asia is not well researched. There is a tendency, however, to equate rural employment with agricultural employment and to assume that participation in the agricultural wage sector precludes participation in the non-agricultural wage sector. Rosenzweig, for example, feels safe in assuming that rural households do not sell their labour outside the agricultural sector.

The allocation of labour time to broad categories of productive work by our sample of landless and near landless males from Char Gopalpur is presented in table 17. Looking first at the columns for adult males (those aged 13 or above), one can see that the majority of their productive work days, 62 per cent, are allotted to the broad category of wage employment. This category includes both agricultural and non-agricultural wage work, and both casual and tenured employment.[19] The remaining days are split between trading (12.5 per cent), cultivation of own crops and care of own animals (8.8 per cent), and the category "other productive work" (16.9 per cent), most of which involves fishing. The participation of children younger than 13 in wage work is less than that of adults, but remains, at 35 per cent, their single most important source of employment. Compared with adults, children spend a much higher proportion of their productive work days caring for own crops or animals and in activities grouped in the "other productive work" category.

A more detailed breakdown of local casual wage employment by source and age of labourer is presented in table 18 (absentees working outside village and salaried workers in the formal sector are excluded). Over-all, 77 per cent of casual wage employment is found in or near the village, of which 53 per cent is agricultural and 24 per cent is non-agricultural. Work in Mymensingh town accounts for the remaining 23 per cent of casual wage employment. Weeding, paddy harvesting and jute stripping (operations for which we shall later analyse wages)

Table 17: Time allocation of landless and near landless[1] males aged 4 and above, Char Gopalpur, 1977

Work category	Aged less than 13			13 years and older		
	Days	% of days in productive work	% of all days	Days	% of days in productive work	% of all days
Local wage work	139	22.3		770	43.0	
Petty trading	60	9.6		224	12.5	
Own crops or animals	163	26.2		157	8.8	
Other productive work[2]	180	28.9		302	16.9	
Wage work away from village	81	13.0		336	18.8	
Total productive work	623	100.0	56.5	1,789	100.0	83.0
Unemployed or out of the labour force (includes days occupied in housework)	479		43.5	367		17.0
Total days observed	1,102		100.0	2,156		100.0
Missing data	23			144		
Total persons	45			92		

1 Includes households owning 0.5 an acre of arable land or less.

2 Includes fishing, own-hut construction and repair, handicrafts, and self-employed skilled work, such as carpentry.

Source: Time use survey. See annex to this chapter.

together account for about half of all agricultural wage employment. Other important sources of agricultural employment are transplanting (paddy), jute harvesting, ploughing, and caring for cattle in the case of children. Casual non-agricultural wage employment in the village includes digging and carrying soil and sand, working as a porter, and hut making. Casual employment in the town includes a variety of types of manual labour at construction and public works sites. Of these, hut making and repair is the only activity that involves special skills, experience, and some specialisation. Although not reflected in table 18, the mobility of labour between local agricultural, local non-agricultural and town employment is quite high. Thus, one frequently finds individuals who have participated in all of these kinds of employment within a single year.

Both tables 17 and 18 underestimate the labour force participation of children in agriculture, because attached labourers under long-term contract to cultivating households are excluded from the calculations. While attached labourers are not a numerically important form of hired labour in the village relative to casual labour, children less than 20 years old make up a disproportionate number of them.[20] Of a total of 42 attached labours (all male) enumerated in our village census, 32 were less than 20, and 18 were less than 15 years old. In the time budgets, we recorded approximately 300 person-days of casual wage employment among male children less than 15 years of age. Considering that our sample was approximately one-third of the total village population and that, on average, slightly less than 25 days of time use were recorded for each individual in the sample, we can estimate that work in the daily wage labour market accounted for approximately 45 person-days of full employment among landless children aged less than 15, while for the same period and age group, attached agricultural labour provided 18 person-years of full employment. Thus, attached labour represents a substantial amount of total child wage employment.

We shall by-pass the important issue of the terms and extent of women's labour force participation, as this has been dealt with in detail in another paper (Cain et al., 1979). In a sense, it is impractical to analyse the markets for male and female labour together because there is so little overlap in sources of wage employment. The segregation of male and female markets remains, however, the most distinctive aspect of labour market structure in rural Bangladesh. A sense of the degree of segregation is given by comparing the distribution of female casual wage employment in table 19 with the distribution for males in table 18. Some 77 per cent of all cases of female wage employment involved food processing or other housework done in the employer's homestead. Note that it is primarily young girls who are engaged in the few field operations listed

Table 18: Percentage distribution of days of casual male wage labour, by type of employment and age, Char Gopalpur, 1977

Type of wage employment	Age				
	Less than 10	10-14	15-19	20 and older	All males
Stripping jute	19	13	11	4	8
Harvesting paddy	3	5	9	7	7
Weeding	9	8	13	12	12
Other agricultural work[1]	69	34	28	22	27
Local non-agricultural work[2]	0	39	9	25	24
Working in Mymensingh town[3]	0	1	29	29	23
Total	100	100	99	99	101
N	32	157	158	497	844

[1] Includes: harvesting jute, chilli, pulse, ground nuts, onions and garlic; transplanting paddy and chilli; ploughing, sowing, threshing; animal care.

[2] Includes: digging or carrying soil; hut making and repair; porter; boat man.

[3] Includes: various kinds of unskilled manual labour; painting.

Source: Transcribed from time budget forms. See annex to this chapter.

Table 19: Percentage distribution of days of casual female wage labour, by type of employment and age, Char Gopalpur, 1977

Type of wage employment	Age				
	Less than 10	10-14	15-19	20 and older	All females
General housework[1]	21	17	40	16	20
Husking and rice processing only[2]	17	46	53	56	50
Sewing quilts[3]	7	0	0	5	4
Other food processing[4]	3	2	2	4	3
Stripping jute	17	12	0	3	5
Harvesting chilli	7	6	5	6	6
Harvesting potatoes	7	2	0	3	3
Harvesting ground nuts	17	12	0	3	5
Other field work[5]	3	2	0	2	2
Other miscellaneous[6]	0	2	0	2	2
Total	99	101	100	100	100
N	29	52	43	186	310

[1] Combines a number of tasks, such as cleaning, helping to prepare meals, and the like. It often also includes husking paddy and other rice processing tasks.

[2] Includes parboiling, husking, drying, and winnowing (cleaning); only one case of threshing.

[3] Most quilts (khathas) are produced on a piece rate in one's home. The cases included here are for a daily wage in the employer's homestead, not piece rate.

[4] Includes grinding and winnowing pulse, processing garlic, cleaning and peeling onions, separating potatoes by size.

[5] Includes harvesting garlic, mulching, carrying paddy, weeding.

[6] Includes feeding cattle, preparing cakes (cooking), making fish net, drying jute stalks, and sitting with mother and newborn child.

Source: Transcribed from the time budget forms. See annex to this chapter.

in table 19. The segregation of labour markets mirrors the societal division of labour by sex and is consistent with the norms of purdah (female seclusion) that exist in rural Bangladesh. Thus, generalisations about the male agricultural labour market do not necessarily apply to the market for female labour.

IV. Agricultural Wages

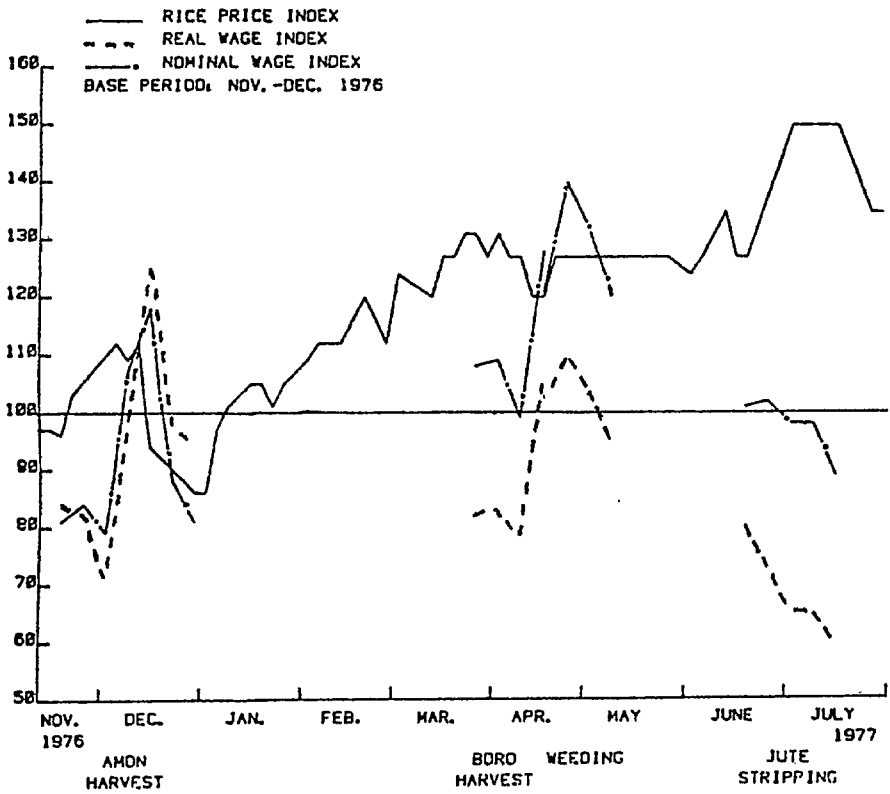
This section focuses on the agricultural labour market in Char Gopalpur. We examine the level of agricultural wages, seasonal wage fluctuations and longer-term trends in the real wage rate, and attempt to estimate and interpret systematic wage differentials, particularly in the light of the theories and hypotheses that were discussed earlier.

1. Seasonal Wage Fluctuations

The wage data are from four separate agricultural operations for which labour is hired, each representing different levels of seasonal labour demand. The amon paddy harvest (November and December) is the period of greatest labour demand in the village, followed by a less intense peak during spring weeding of the aus paddy and jute crops. Both the small winter rice crop (boro) harvest and the period during which jute fibre is stripped from its stalk are relatively slack times in the agricultural cycle.

Seasonal wage and rice price indexes are presented in figure 2 for the period covering these four operations in 1976 and 1977. The price index is based on data that we collected twice weekly from the local bazaar. Wage data are taken from the series of agricultural labour surveys that we conducted in the village, and represent daily wage rates averaged for one-week intervals. The real wage series was calculated by adjusting nominal wage rates by the rice price index. Marked seasonal fluctuations in real wage rates are evident from figure 2. Moreover, both nominal and real wages vary sharply within particular seasons. The weekly and seasonal movement of real wages strongly suggests that they reflect responses to shifts in labour demand. During the amon harvest, for example, wages are low in the month of November, when the relatively few plots of early ripening varieties (Kartikshail) and plots planted very early are being harvested, and activity is sparse; but they rise sharply toward mid-December as the main varieties ripen. The first three weeks of recorded wage rates for the boro harvest are uniformly low, at levels approximately 20 per cent below the mean for the amon harvest. However, for the last week of observations in mid-April, which coincides with the beginning of the weeding season, wages jump 25 index points. Over-all, variation in wage rates for the four agricultural

Figure 2: Rice prices and daily agricultural wages, Char Gopalpur, 1976-77



operations is consistent with what one would expect if wages were responsive to seasonal shifts in labour demand: thus, wages are highest when labour demand is highest (amon harvest and weeding), they peak most sharply when demand peaks most sharply (amon harvest), and they are lowest during slack periods (boro harvest and jute stripping).

2. The Level of Wages

At first glance, the apparent sensitivity of wages to labour demand in figure 2 conflicts with the wage constancy predicted by the efficiency wage theory (and the constant institutional wage hypothesis). However, Rodgers argues that the efficiency wage theory is applicable only in low-wage, low-income situations, and, although unlikely, it is possible that wages in rural Bangladesh are higher than they were in the Kosi area in 1971 (i.e. higher than the efficiency wage level). But this is not the case. The daily calorie wage rates reported for the Kosi villages (in the range 5000 to 8000 kcal) are comparable to the mean daily wage for Char Gopalpur (6700 kcal). As noted by Rodgers, these are desperately low wages.

3. Wage Differentials

The theories of wage determination reviewed earlier yield a number of predictions regarding market segmentation and wage discrimination that we propose to test through regression analysis of agricultural wages in Char Gopalpur. We shall focus particularly on the pattern of wage discrimination hypothesised by Bardhan, resulting from employers' attempts to minimise recruitment costs or from the differential labour supply elasticity of various population subgroups. Also, whereas the observed seasonal fluctuations in wages make it unlikely that Rodgers' efficiency wage theory applies in the area of Char Gopalpur, a second important implication of the micro-level efficiency model - that wage rates are positively related to the dependency ratio of labouring households - remains to be tested.

The accurate measurement of wage rates in settings like Char Gopalpur is notoriously difficult to accomplish. The combination of time rates and piece rates (and, in many areas of south Asia, harvest share payments), and the variety of mediums of payment (including cash, meals, and grain), make it extraordinarily difficult to derive comparable wage estimates in common units of value. The possibilities for accumulating both random and systematic error in the process of coming up with comparable measures are many. An almost total absence of documentation of data collection methods or critical evaluation of data sources is a distinctive feature of most of the economic literature that we have reviewed; and it is our uncertainty

regarding the reliability of data and interpretations of empirical results, as much as, or more than, the cogency of theoretical arguments, that causes us problems in evaluating the analyses and conclusions contained in that literature.[21]

There are two types of wage contract for casual agricultural labour in Char Gopalpur: a time rate, usually an agreed amount of cash and/or kind per day; and a piece rate, where a labourer or group of labourers agrees to complete a particular task (e.g. harvest X acres of paddy or strip a bundle of jute of size Y) for a fixed amount of cash or kind. In this area, there is no harvest share system (that is, a system in which labour receives a fixed proportion of total yield).[22] Table 20 shows the distribution of casual labour contracts for the four agricultural operations that we are considering, by mode and composition of payment. Both daily and piece wages are paid in a variety of forms, including cash (taka), cash plus meals, and cash plus rice. The situation is further complicated because the composition and quantity of meals (ranging from one to three) varies from contract to contract. To illustrate the potential for errors, we consider the steps involved in converting all wages into standard units of take per day (something that we did in order to construct the wage series in figure 2). First one has to determine the taka value of meals - no easy task, considering that the food composition and value of meals varies from employer to employer and from meal to meal (i.e. morning, midday, evening), and that the quantity consumed by any individual depends at least on his or her age and sex. One also needs the market price of the various food components. To convert piece wages to daily rates, one has to estimate the time it took to complete the contracted task. Then one needs information about the length of a standard work day, which varies over the year, in part because the number of daylight hours varies. Additional complications could be listed.[23] It is already clear, however, that some potentially sensitive assumptions and difficult estimates must be made before getting comparable wage measures.

At some sacrifice to our case base, we decided to minimise measurement error by estimating regression equations for subsamples of labourers who receive the same form of wage. For the amon harvest, one subsample consists of labourers receiving cash plus two or three meals a day. The dependent variable (AD) in this case is the cash component of the daily wage (the value of meals is not considered because everyone receives the same number of meals). Another subsample is those receiving a cash piece rate plus either two or three meals a day; the dependent variable (AC) in this case is the cash component of the wage expressed in terms of taka per kata (a unit of land equal to one-tenth of an acre). There are also two subsamples of jute-stripping labourers: those receiving a pure cash piece wage and those receiving a daily cash wage plus two or three

Table 20: Distribution of hired labourers, by type of operation and mode of payment, Char Gopalpur, 1977

Mode of payment	Operation							
	Harvest amon		Harvest boro		Aus and jute weeding		Jute stripping	
	N	%	N	%	N	%	N	%
Daily rate								
Taka	7	(1)	-	-	14	(3)	4	(1)
Taka and meals	191	(37)	65	(57)	345	(63)	117	(16)
Taka, rice and meals	32	(6)	49	(43)	106	(19)	25	(3)
Taka and rice	2	(0)	-	-	-	-	34	(5)
Piece rate[1]								
Taka	71	(14)	-	-	24	(4)	459	(64)
Taka and meals	150	(29)	1	(1)	36	(7)	69	(10)
Taka, rice, and meals	65	(12)	-	-	27	(5)	6	(1)
Taka and rice	4	(1)	-	-	-	-	-	-
Total	522	(100)	115	(100)	552	(100)	714	(100)
Other[2]	3		2		-		-	
Not ascertained	-		-		-		2	

[1] Per tenth of an acre of land (kata) in the case of harvest and weeding; per bundle of jute fibre (ati) in the case of jute stripping.

[2] Payment in the form of straw.

Source: Agricultural labour surveys. See annex to this chapter.

meals. The dependent variable for the first (JC) is the total cash wage expressed in terms of taka per ati (a "standard"-sized bundle of jute fibre), and for the second (JD) is the cash component of the daily wage. Finally, we have one subsample of weeding labourers, all of whom received a daily wage of cash plus two or three meals. For this subsample, the dependent variable (WD) is the cash component of the daily wage. The boro harvest sample, already relatively small, becomes prohibitively small for multivariate analysis when we isolate a subgroup with a common form of wage payment, and is thus omitted.

Variable definitions, means, and standard deviations for both dependent and independent variables are presented in table 21. The basic model estimated expresses the wage rate as a function of the age of the labourer (AGE, AGESQ), land holdings of the employer (LAND), a dummy variable that takes the value of one if the observation was made during a peak period of labour demand within the season (SEASON), and a series of dummy variables measuring the distance of the labourer's place of residence from the employer's homestead (PROX). The omitted proximity dummy variable equals one if the labourer lives outside the employer's village but within the same thana (an administrative sub-unit that contains about 150 villages). The logic of this specification should become clear as we interpret the regression results.

Variable specifications differ slightly for different subsamples for several reasons. The dummy variable SEASON is omitted from the equations for jute stripping because the week-to-week fluctuations in wage rates were relatively mild for the period during which the great majority of observations were recorded. The dummy variable PROX 3 is omitted from one jute-stripping subsample because it contained no migrant labourers from outside the thana. A variable measuring the distance that labourers have to carry sheaves of cut paddy from the field to the threshing floor (DISTANCE) is included in the equations for amon harvest; obviously this variable has no meaning for stripping and weeding operations. A dummy variable for sex (SEX) is included in the equation for jute-stripping piece wage rates - the only subsample in which female labourers appear.

Table 22 presents the results of ordinary least squares (OLS) estimation of our wage functions. Metric coefficients with t-values are reported along with the R^2 (adjusted), F-statistic, and the number of cases for each equation. We note first that the coefficients for the variable SEASON, which, when other variables are held constant, can be interpreted as a pure measure of shifts in local labour demand and/or supply, is consistently positive and highly significant.[24] The result provides further evidence that wages are indeed (at least in part) market determined.

Table 22: Variable definitions, means and standard deviations for three agricultural operations, by mode of payment, Char Gopalpur, Bangladesh, 1976-77

Variable	Definition	Piece rates				Daily rates					
		Amon harvest		Jute stripping		Amon harvest		Weeding		Jute stripping	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
AC	Cash component of piece wage rates (taka per kata) which include 2 or 3 daily meals, Amon harvest	2.79	.78								
JC	Cash component of piece wage rate (taka per ati) which include no meals, Jute stripping			.23	.06						
AD	Cash component of daily wage rates which include 2 or 3 daily meals, Amon harvest					2.35	.82				
WD	Cash component of daily wage rates which include 2 or 3 daily meals, weeding							4.17	1.32		
JD	Cash component of daily wage rates which include 2 or 3 daily meals, Jute stripping									2.87	1.08
AGE	Age of labourer in years	30.4	13.7	24.8	13.8	24.8	13.2	33.0	16.53	34.7	13.9
AGESQ	Age of labourer squared	1106.0	933.0	803.2	850.5	789.0	813.0	1359.0	1588.4	1394.1	914.0
LAND	Total land holdings of the employer in units of one-tenth of an acre (kata)	68.1	33.8	77.8	54.0	52.3	35.9	57.1	33.6	56.4	35.8

/continued...

Table 22 (continued)

Variable	Definition	Piece rates				Daily rates					
		Amon harvest		Jute stripping		Amon harvest		Weeding		Jute stripping	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
SEASON	Dummy = 1 if observation was made during period of peak labour demand	.44	.50			.46	.50	.68	.47		
DISTANCE	Distance of plot from employer's homestead in yards	290.0	236.0			308.0	280.0				
SEX	Dummy = 1 if labourer is female			.10	.31						
PROX 1	Dummy = 1 if employer and labourer live in the same bari (homestead) or para (neighbourhood)	.67	.47	.67	.47	.67	.47	.27	.45	.49	.50
PROX 2	Dummy = 1 if the labourer lives outside the employer's para but in the same village as the employer	.04	.19	.16	.37	.05	.22	.03	.18	.19	.40
PROX 3	Dummy = 1 if the labourer is a migrant from outside Kotwali Thana	.04	.19			.11	.32	.64	.48	.06	.24

Wages are also responsive to worker productivity (efficiency). The link between wages and work efficiency is, of course, inherent in a piece-rate system. Piece wage rates are offered in the village usually in three situations: the cultivator is anxious to complete an operation as quickly as possible (common during harvests); the cultivator lacks supervisory manpower; or the efficiency with which a task can be completed is highly variable and work effort is difficult to monitor (e.g. jute stripping). The rationality of wage determination is illustrated by the estimated coefficients for the DISTANCE variable. For the amon harvest piece wage equation, the coefficient for DISTANCE is significantly positive, while for amon harvest day wages, the coefficient is not significantly different from zero. In the case of piece-rates for the paddy harvest, a typical contract specifies a wage per area harvested. However, the contract also requires that the cut paddy be brought from the field to the threshing floor (usually in, or adjacent to, the employer's homestead). For fields further away from the employer's homestead, it will take longer to complete a contract for a given area. Hence, a labourer demands and receives a wage premium for contracts involving greater distances. In the case of time wages (daily rates), the carrying distance is irrelevant, and, as one would expect, the coefficient for DISTANCE is not statistically significant.

The sensitivity of wages to output per unit of time is apparent in the pattern of coefficients for AGE and AGESQ. Children comprise a substantial proportion of the workforce for the operations under consideration, as shown in table 23. Of all hired labourers involved in the amon harvest, weeding and stripping, 31 per cent are 19 years of age or younger, and 16 per cent are less than age 15. If wages were a function of efficiency, one would expect a curvilinear (inverted U) relationship between age and time wages, because work capacity varies with age. This is exactly what we find for the daily wage regressions in table 22. The coefficients for AGE are positive and highly significant, while the coefficients for AGESQ are negative and also highly significant.

In contrast, the age coefficients in the piece wage regressions are not significantly different from zero, which suggests that children are paid a "fair" wage relative to adults - in other words, that they are paid according to their ability to perform work.[25] The hypothesis that children are the victims of discriminating monopsony (Bardhan) or that they represent an exceptionally exploited segment of the labour force (Rodgers and Standing) is not supported by our results. Note that the coefficient for SEX in the JC equation is not statistically significant, suggesting that women also are not subject to the kind of wage discrimination predicted by Bardhan's model. The inequity, as far as women are concerned, comes rather from their exclusion from so many

Table 22: Regression analysis of agricultural wages, by mode of payment for three agricultural operations, Char Gopalpur, 1976-77

Independent variable	Dependent variable				
	Piece wage rates		Daily wage rates		
	AC	JC	AD	WD	JD
AGE	-.042 (1.75)	.0014 (1.47)	.200 (8.67)	.096 (4.26)	.145 (4.96)
AGESQ	.00063 (1.78)	-.00001 (.87)	-.0030 (8.10)	-.0013 (4.36)	-.0020 (4.38)
LAND	-.00033 (.19)	-.00017 (2.00)	.0034 (1.89)	-.010 (5.26)	-.016 (6.43)
SEASON	.941 (7.94)		.541 (4.36)	1.579 (11.68)	
DISTANCE	.0013 (5.43)		.0003 (1.53)		
SEX		.0075 (.70)			
PROX 1	.052 (.41)	.015 (1.22)	-.099 (.62)	.096 (.35)	-.352 (1.63)
PROX 2	.053 (.17)	-.0046 (.37)	-.227 (.80)	-.523 (1.26)	-.958 (3.52)
PROX 3	.890 (2.88)		-.497 (2.18)	-1.357 (5.09)	-.499 (1.19)
CONSTANT	2.524	.210	-.609	3.080	1.899
R^2	.526	.104	.414	.520	.510
F	14.16	5.99	11.13	41.25	13.35
N	111	316	135	275	84

Note: t-values are shown in parentheses. For variable definitions, see Table 6.

Table 23: Distribution of paid agricultural labourers, by age and operation, Char Gopalpur, 1976-77

Age	Amon harvest		Aus and jute weeding		Jute stripping	
	N	%	N	%	N	%
5-9	4	1	-	-	44	6
10-14	63	12	38	7	130	18
15-19	108	21	82	15	89	12
20+	347	66	432	78	453	63
Total	522	100	552	100	716	99

Source: Agricultural labour surveys.

important forms of wage employment, and manifests itself both in higher rates of female unemployment relative to men and in substantial differentials in wages paid for "female" jobs (e.g. rice husking) as opposed to "male" jobs (e.g. field work) (Cain et al., 1979).

Bardhan's model of monopsonistic labour markets yields predictions relating to tied labour that we can test. Recall that Bardhan argued that employers, in order to ensure a ready supply of labour during critical peak periods of labour demand, pay labourers wages greater than their marginal product in the slack season, with the understanding that the same labourers make themselves available in the busy season. If we can assume that such labour tying arrangements are more likely to be made with villagers rather than migrants, then we should observe systematic wage differentials in the slack season, such that villagers receive higher wages than migrants. An examination of the pattern of proximity dummy variable coefficients for jute stripping suggests that such differentials do not exist in the village. In the JC regression equation, the difference between wage rates for labourers living in the same neighbourhood as their employer (PROX 1) and wages for labourers from outside the village (represented by the omitted dummy variable) is 0.015, which is not significantly different from zero. In the

JD regression equation, the coefficients for PROX 3, representing distant migrants (0.499), and for PROX 1, representing labourers who are close neighbours of their employer (0.352), are significantly different neither from each other, nor from zero. The coefficient for PROX 2 (representing labourers who are not neighbours of their employer, but who live in the same village) is statistically significant, but of the opposite sign to that predicted by Bardhan. Given the pattern of coefficients for the proximity variables, one cannot draw any conclusions about systematic migrant/local wage differentials for the area of Char Gopalpur. Considering only the coefficients for PROX 1 and PROX 3, in three cases the differentials are not statistically significant (JC, AD, and JD); in another, migrants have higher wages than villagers (AC); and in yet another, villagers have higher wages than migrants (WD).

We have thus far found no evidence to support the notion that the labour market in Char Gopalpur is monopsonistic or olisopsonistic. We can, however, think of a situation in which the structural preconditions of monopsony do not pertain, but where relatively large owners possess a degree of extra-economic power that they can use to their advantage in the labour market. Political patronage is one such potential source of employer power. There are a variety of forms of patronage in the village, involving relations with the local thana police, judicial proceedings, dealings with the local Union Council, and so on. Various individuals offer different kinds of access and influence. In general, as one might expect, influence is positively correlated with wealth. In this situation, we argue that the wage-bargaining behaviour of labourers with employers who can provide patronage of the sort we have mentioned is likely to be different from their behaviour toward employers who cannot. If a powerful employer offers a wage slightly lower than the going rate, a labourer will be more likely to accept the offer than he would from an employer with less or no power. In an otherwise competitive market, patronage-derived power differentials can lead to wage differentials.

Table 22 provides some evidence of the existence of this kind of market distortion. In three of the five regressions in table 22, the coefficient for employer's landholding size (LAND) is negative and statistically significant. As the power deriving from patronage is unlikely to be absolute, it is not surprising that, for the amon harvest, wages are unrelated to size of employer's holding. We interpret the results to mean that larger landowners, by virtue of their extra-economic power, command a wage discount in the off season (i.e. jute stripping and weeding); but their power is limited, and is swamped by market forces during periods of peak demand (the amon harvest).

Rodgers' efficiency wage theory, applied at the micro-level, predicts that wages will be positively related to the

dependency ratio of a labourer's household. The logic of this prediction is that employers are primarily concerned with maintaining a family subsistence wage, and will thus adjust downward the wages of individuals from families with a greater proportion of earners. Bardhan found that wages were positively related to the family dependency ratio of labourers in his sample from West Bengal. He rationalised this finding by arguing that workers with higher dependency ratios would provide a more dependable supply of labour, and would therefore entail lower recruitment costs for the employer. Using the same rationale, Bardhan predicted and found wages to be negatively related to the landholdings of hired labourers in West Bengal. We estimated a second set of wage functions to test for the presence of such relationships in Char Gopalpur, adding to the functions independent variables measuring labourers' dependency ratio (DEPEND) and landholdings [LAND(LAB)], and a dummy variable, MALLOT, taking the value one if both labourer and employer are members of the same mallot (a solidarity group whose functions we will describe presently), and zero otherwise. The results are reported in table 24. Migrant workers are excluded, and thus the sample size is reduced, and the proximity dummy variables are left out. The dependency variable is the ratio of the number of dependents in the labourer's household (total number of persons in the household minus the number of males aged 12 to 65) to the number of earners (assumed to be males aged 12 to 65). The landholding variable is measured in the same way for labourers as for employers.[26]

Changes in sample size and variable specification leave our initial interpretation of the effects of AGE, AGESQ, LAND, SEASON, DISTANCE and SEX largely intact. One anomalous result in table 24 is that we lose the expected age effect on wages for the AD equation. The reason is that the AD subsample "ages" with the exclusion of migrants. The loss of younger workers results in a mean age of 29.5 for the AD subsample in table 24, compared with a mean age of 24.8 in table 22.

We find, in table 23, that the coefficients for DEPEND are not significantly different from zero. In the one equation for which the DEPEND coefficient approaches significance (JC), the sign is in the opposite direction to that predicted by Bardhan and Rodgers. For the variable LAND(LAB) also, the coefficients are not significantly different from zero, although they are of the predicted sign. Our results thus lend no support to the theories of Bardhan and Rodgers.

In Char Gopalpur, mallot are social groups that gather on occasions such as the marriage or death of a member, and whose members collectively celebrate various religious festivals. Mallot function as solidarity groups; bonds between members are reinforced by gift exchange on various occasions. Outside

Table 24: Regression analysis of agricultural wages, with DEPEND, LAND(LAB), and MALLOT, for village labourers only, Char Gopalpur, 1976-77

Independent variables	Dependent variable			
	Piece wage rates		Daily wage rates	
	AC	JC	AD	WD
AGE	-.032 (.98)	.0018 (1.64)	-.0045 (.12)	.190 (4.42)
AGESQ	.00046 (.98)	-.000021 (1.05)	.000034 (.06)	-.0026 (4.48)
LAND	-.000025 (.01)	-.00016 (1.78)	-.0014 (.45)	-.0062 (1.55)
SEASON	1.269 (8.02)		1.141 (6.39)	1.465 (5.77)
DISTANCE	.0015 (4.84)			
SEX		.018 (1.51)		
DEPEND	-.017 (.03)	-.0037 (1.85)	-.022 (.39)	.0011 (.02)
LAND(LAB)	-.015 (1.11)	-.0015 (1.85)	-.017 (1.05)	-.0023 (.09)
MALLOT	.335 (1.99)	.021 (2.83)	.417 (2.19)	-.095 (.38)
CONSTANT	2.106	.201	2.344	1.512
R^2	.584	.120	.386	.507
F	11.25	4.53	6.02	10.73
N	73	240	75	81
$\bar{Y}$	2.58	.24	2.86	4.57

Note: t-values are shown in parentheses. For variable definitions, see table 22.

of a few well defined expectations, however - for example, members must seek the formal approval of the mallot in the case of marriage or else risk ostracism - the responsibilities of members for one another, particularly with respect to material support, are vague. It is therefore interesting to note that wages tend to be positively related to common mallot membership. In table 24, for three out of four equations, the coefficient for the variable MALLOT is significantly positive. One of the ways in which the relatively poor members of a mallot may support wealthier members is through allegiance in factional disputes. One can, then, interpret the wage concessions that employers seem to make to labourers belonging to the same solidarity group as an exchange for factional loyalty.

In summary, we have found evidence of two kinds of distortion in what otherwise appears to be a highly competitive labour market (excepting the situation of women). First, labourers who are bound to employers by common membership in a solidarity group appear to receive a wage concession, possibly in return for loyalty in factional disputes. Second, other things being equal, employers with larger holdings pay lower wages than employers with small holdings; and their power to do so derives not from monopsonistic market conditions, but rather, we suggest, from personal patronage. In neither case is the effect on wages unqualified: we do not observe the positive wage effect of MALLOT in the equation for weeding; and the leverage that employers with larger holdings seem to enjoy in the slack season disappears during periods of peak labour demand.

5. Downward Wage Rigidity

There remains the question of the degree of downward wage flexibility over longer periods of time. In 1979, Bangladesh suffered a countrywide drought that severely affected agricultural production and employment. The drought sharply reduced the area under aus rice and jute cultivation, and generated low yields on the acreage that was planted. Rice prices almost doubled between January and September 1979. If wages are determined largely by the forces of labour demand and supply (and our short-run analysis would not lead us to conclude otherwise), then under the recent drought conditions, real wages would surely have suffered a decline. In the autumn of 1979, we returned to Char Gopalpur to assess the local effects of the drought, particularly on the poorer villagers. During our short visit, we spent a great deal of time collecting data on current wage levels (early September), wages for the preceding aus paddy harvest (July), and wages for weeding (May 1979).

We found that the dramatic increase in the price index was matched by an increase in the nominal wage index. Real

wages remained remarkably steady over time, despite the employment crunch that must have occurred during the drought.

Other evidence that we have examined does not support Rodgers' theory, and it is therefore unlikely that the efficiency wage floor is responsible for the price responsiveness of wages. Instead, it seems to us that the most likely explanation for the evident downward wage rigidity is incipient labour organisation and an underlying potential for violent protest among the landless in defence of their right to a minimum wage.

Direct evidence of "incipient labour organisation", as for any conspiracy, is difficult to assemble. On the basis of casual interviews with villagers, it does seem, however, that relatively small groups of labourers do collectively agree to refuse to work for less than a certain wage rate. The wage rate chosen varies according to market conditions and season, and the labourers' ability to maintain their collective demands weakens when, for example, a large number of migrant workers are available in the village area. Regardless of market conditions, however, the minimum wage rate never seems to fall beneath a level slightly greater than the value of three meals per day, or the accepted grain equivalent.

In low-income environments where the prices of food staples are volatile, the significance of meals as a fundamental part of the wage contract is more profound than usually assumed. Rodgers argues, for example, that by providing meals as a part of the wage, employers are attempting to influence directly the intrahousehold distribution of food among the landless so that the portion of the labour force which is of the most immediate use to them is proportionally better fed. Bardhan disputes this interpretation, and suggests that providing meals at the work site is simply a way in which employers maximise the length of the work day. In their interpretations, both Rodgers and Bardhan look through the eyes of the employer; however, in a very slack labour market, where market forces may dictate a wage beneath the three-meal level, the meal component of the wage contract becomes of vital importance to the labourers themselves. As long as meals are an accepted part of the contract, a real wage floor is effectively in force, since with rapid price inflation, the meal component of the wage contract ensures that wages will in part be pegged to prices.

As for violence, there was no instance observed, or in the remembered past, of violent action taken by labourers directly relating to wages. But we also found no cases of wage contracts in which the daily rate was less than the value of three meals, even during periods of drought and flood conditions. In fact, after many observations, we found no wage contracts (among adult males) in which meals were not supplemented by some cash, even if only one taka. Thus, the moral force of the minimum wage has, perhaps, yet to be tested. The

potential for violence in rural Bangladesh clearly exists, however, and should not be underestimated. Murder, assault and theft are not uncommon; threats to honour or material well-being frequently invoke physical force. In keeping with the predominance of markets and the absence of effective government administration, depredation rather than philanthropy and conflict rather than consensus characterise rural society.

We conclude by pointing out that the existence of a minimum real wage rate is a very limited form of security for the landless, and does not imply an assured subsistence income. It is invoked only when employment is secured, and provides little comfort to the poor in the event of prolonged unemployment.

V. Conclusions

We return finally to the implications of labour market structure in Char Gopalpur for child work and reproductive behaviour among the landless and near landless villagers. Following the organisation of the earlier section, the main implications can be summarised as follows: (1) We find in the village an individual rather than a family wage system, as evidenced by seasonal wage variability, the apparent responsiveness of wages to shifts in labour demand (and supply) and to individual work output, and the absence of a positive relationship between wage rates and household dependency ratios. It can be concluded, therefore, that the costs of children and their contributions to the household economy have direct relevance for fertility decisions. (2) There appears to be a floor to real wage rates, but not for the reasons suggested by Rodgers. The incipient labour organisation that we believe explains downward wage rigidity is weak, however, and provides a tenuous security that does not extend to employment guarantees, unemployment compensation or family income supports. Nevertheless, in the event of continuing downward pressure on real wages, the wage floor may postpone the time when children cease to be a paying proposition. (3) Accepting that male children do indeed currently return a positive net "yield", and considering their utility in other regards (risk insurance, etc.), sex-segregated markets generate positive fertility incentives in two ways: (a) through the constraints on female child productivity (i.e. parents need to produce two children on average in order to come up with one potential earner); and (b) through the additional risks that economic dependence imposes on women, and the special significance of sons as a hedge against such risk. The labour market is not segmented in the way predicted by Bardhan. In the village area, the preconditions for monopsony, oligopsony and interlinked factor markets do not exist. Thus we find that children are not subject to wage discrimination; and diminution of

potential returns to child labour from this source does not arise. (4) The labour market structure of the village area entails a high degree of risk from the labourer's standpoint. In this setting, the rationale for "portfolio diversification" is strong, and it provides an additional positive incentive for high fertility.

There is nothing inevitable about the particular labour market structure that reveals itself in Char Gopalpur. We would in no way suggest that the composite picture that emerges is typical of rural south Asia as a whole - although we suspect that it may be more broadly characteristic of rural Bangladesh. It would indeed be unfortunate if it were typical, because with respect to the fertility incentives inherent in this particular market structure (to paraphrase "Murphy's Law"), everything that could go wrong has gone wrong.

The models developed by Rodgers and Bardhan fare rather poorly in Char Gopalpur. Few of their predictions test out in the village labour market. If only by the process of elimination, Rosenzweig's model seems to do better. We emphasise, however, four characteristics of the labour market in Char Gopalpur that are at odds with his conception: (1) extreme sex segregation (and the underlying system of male dominance); (2) downward wage rigidity (and the incipient labour organisation and moral force of subsistence rights that this implies); (3) distortions (systematic wage differentials) arising from the non-economic power of patronage; and (4) market segmentation based on solidarity-group membership. We suggest, moreover, that in all likelihood, conditions in rural Bangladesh are as close to the competitive market modelled by Rosenzweig as one will get in rural south Asia. The fact that the conceptions of Bardhan and Rodgers do not apply in Char Gopalpur does not, of course, preclude their applicability in other parts of the Indian subcontinent.

Aside from the sweeping generalisations of modernisation and demographic transition theory regarding structural differentiation in society and the development of markets in general, the potential variability and importance of labour market structure has been largely ignored in fertility theory relating to developing countries. Market structure has most often been left to assumption, while theoretical work has focused on the fertility effects of "exogenous" changes in wages and income, or has exhibited a narrow concern with limited aspects of labour markets (most notably, the conditions of female employment).[27] We hope to have shown that a more comprehensive analysis of labour markets, and in particular of the position of children in these markets, can yield substantial insights into the determinants of fertility in societies such as rural Bangladesh.

Annex: Sources of Data

Time-use Data

Records of time use were collected for all persons aged 4 and above in a random sample of 114 households. The sample included approximately one-third of all village households (639 individuals). Time use was reconstructed for the 24-hour period preceding the interview. Such records were taken from each individual every 15 days throughout the calendar year 1977. A single round of time-use data collection took approximately eight days to complete, and thus all households were not visited on the same day of the week in each round. The ordering of interviews was fixed within a given round, however, so that a constant time interval was maintained on successive rounds of data collection for each household. The choice of 15-day intervals ensured a systematic sampling of days of the week throughout the year. A total of 25 observations of 24-hour periods of time use were recorded for each individual in the sample. In some cases, the record is incomplete because of missing data, and there was some sample attrition due to death and out-migration. On the time-use form that was filled out in the field, activities were recorded in detail and in sequence of their occurrence. Subsequently, codes were assigned to activities and activity durations were estimated to one-tenth of an hour.

In table 17, we show, for males from households owning one-half an acre of land or less, the allocation of days (over the whole year) to various activities. Most persons engaged in more than one activity in a given day. In order to allocate days to the row categories of table 17, activities were ordered on the basis of assigned priorities. Days were assigned to categories according to the highest priority activity engaged in on a particular day. First, days absent (those in "Wage work away from village" and those absent and "Unemployed or out of the labour force") and days of missing data were identified and assigned to their respective categories. Second, the remaining records were scanned and if the code for wage work was found, the record was assigned to the "Local wage work" category (regardless of whether or not the person was engaged in other activities during that day, and regardless of the time duration of the wage work). Next, the remaining records were scanned and if the code for petty trading was found, the record was assigned to the next work category in table 17, "Petty trading". This process continued until the list of work categories in table 17 was exhausted. If the person did not engage in any of the four broad categories of market work on a given day, the record was assigned to the "Unemployed or out of the labour force" category.

Agricultural Labour Surveys

The sampling unit in the labour surveys was a plot of land undergoing a particular operation, such as harvesting or weeding. Throughout the village study, during periods of agricultural activity, we would systematically visit agricultural plots within the village and interview labourers working on the plots to determine whether the labourer was paid or unpaid; if paid, the terms of contract and wage; and a number of personal characteristics such as age and residence. In addition, we collected some information about the plot itself, for example, yield, in the case of harvest operations, and we ascertained who the owner or operator of the plot was. As we had earlier taken a complete census of the village, cultivators and hired labourers from the village could be matched with their census identification number, and data from the plot surveys could be supplemented with socio-economic data collected during the census, and from other inquiries that we conducted in the course of the study. For example, the determination of mallot membership for the entire village was a fairly time-consuming process that we carried out independently. Once we had a complete membership list, however, it was a simple matter to determine whether or not the parties in a particular labour contract were members of the same mallot.

A mimeographed report on time budget methodology used in this study is available on request from the first author of this chapter.

Notes

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1 F.T. Jannuzi and J.T. Peach: Report on the hierarchy of interests in land in Bangladesh (Dacca, USAID, 1977).

2 The World Bank: World Development Report, 1978 (Washington, DC, 1978).

[3] W.A. Lewis: "Development with unlimited supplies of labour", in The Manchester School, May 1954, and J.C.H. Fei and G. Ranis: Development of the labor surplus economy: Theory and policy (Homewood, Illinois, Richard B. Irwin, 1964). Subsequent text references to Lewis and Fei and Ranis are to these sources.

[4] A summary and review of criticism of Fei and Ranis are provided by M.P. Todaro: Economic development in the Third World (London, Longman, 1977), Ch. 9.

[5] G.B. Rodgers: "Nutritionally based wage determination in the low-income labour market", in Oxford Economic Papers, 1975, No. 1. Subsequent text references to Rodgers are to this source. The notion that wages can be influenced by the link between productivity and consumption is not new. H. Leibenstein: Economic backwardness and economic growth (New York, Wiley, 1957) was apparently the first to have explored the theoretical implications of this idea.

[6] However, Rodgers did not find an association between dependency and wages within micro-labour markets, and argued that this was because the simple, micro-level efficiency model needed to be complemented by analysis of institutional aspects of labour market structure.

[7] M.R. Rosenzweig: "Rural wages, labor supply, and land reform: A theoretical and empirical analysis", in The American Economic Review, 1978, No. 5, pp. 847-861. Subsequent text references to Rosenzweig are to this source.

[8] P.K. Bardhan: "Wages and unemployment in a poor agrarian economy: A theoretical and empirical analysis", Journal of Political Economy, 1979, No. 3, pp. 479-500. Subsequent text references to Bardhan are to this source.

[9] For example, see A. Bhaduri: "An analysis of semi-feudalism in East India", in Frontier, Autumn 1973.

[10] J.C. Scott: The moral economy of the peasant (New Haven, Conn., Yale University Press, 1976).

[11] A.V. Jose: Trade union movement among agricultural labourers in Kerala: The case of Kuttanad region Centre for Development Studies working paper No. 93 (Trivandrum, 1979).

[12] Rodgers and Standing make two points. The first (which we are referring to) is that children can be expected to suffer wage discrimination. The second is that the employment of children at discriminatory wage rates applies downward pressure on wage levels in other segments of the labour market.

[13] This argument is elaborated in Cain et al. (1979).

[14] See Scott, 1976, op. cit., for a review of this extensive literature.

[15] For a review of the evidence, see K. Bardhan: "Factors affecting wage rates for agricultural labor", in Economic and Political Weekly, 1973, Vol. 8, pp. A56-A63; K. Bardhan: "Rural employment, wages and labour markets in India", in Economic and Political Weekly, 1977, No. 28, pp. 1101-1110.

[16] On interlinked factor markets, see K. Bharadwaj: Production conditions in Indian Agriculture (Cambridge, Cambridge University Press, 1974), and P.K. Bardhan: Inter-linked factor markets and agrarian development: A review, paper prepared for the Yale Labor and Population Workshop, 27 October 1978.

[17] See Bardhan, 1978, op. cit.

[18] See G. Standing: Migration and modes of exploitation: The social origins of immobility and mobility (Geneva, ILO, mimeographed World Employment Programme research working paper; restricted).

[19] A few men in the village have salaried jobs in the formal sector.

[20] In our agricultural labour surveys (four operations), attached labourers accounted for 6 per cent of all hired labourers interviewed.

[21] Not all economists escape censure. For an exposé of J. Curtis Huckster (author of "The backward-bending, forward-jumping supply curve: Some theoretical and empirical results"), see E. Karni and B.K. Shapiro: "Tales of horror from ivory towers", in Journal of Political Economy, 1980, No. 1.

22 From interviews with older villagers, it seems that the harvest share payment system was replaced in the village area by the current system of payment about 50 years ago. Clay, in a study of the Joydebpur area north of Dacca, found harvest share payments coexisting with other forms of payment, including time and piece wages. The share fractions were not, as one might expect in a system of customary rewards, fixed; rather, they varied widely. Clay initially interpreted the coexistence of different payment systems as evidence that the labour market in rural Bangladesh was in a state of transition. This interpretation does not fit the evidence from Char Gopalpur, where the transition appears to have occurred long ago. Subsequently, Clay revised his earlier conclusions, suggesting that the share payment system still evident in Joydebpur is the exception rather than the rule. See F. Clay: "Institutional change and agricultural wages in Bangladesh", in The Bangladesh Development Studies, 1976, No. 4, pp. 423-40, and in "The rice harvesters revisited - A micro study of the forms of payment to agricultural labour in Bangladesh", paper presented at the ADC-ICRISAT Conference on Adjustment Mechanism of Rural Labor Markets in Developing Areas, 22-24 August 1979, Hyderabad (India).

23 Additional complications in the measurement and valuation of agricultural wages are discussed by Clay, op. cit.

24 The term "significant" implies at the 5 per cent level, "highly significant" 1 per cent.

25 The attached labour contracts in which children are involved also seem to adhere to this standard of fairness. The typical contract is of one year duration, and provides for room and board plus some cash payment. Contracts appear to be entered into freely; terms are usually renegotiated on a yearly basis in cases where the parties wish to extend the contract; and the cash component of the wage varies with the physical ability of the labourer.

26 The great majority of hired labourers are landless; however, a number of very small landholders also participate in the casual wage labour market.

27 It is unfair to single out social demographers for their neglect of labour market structure inasmuch as economic development theorists seem to have been almost as uncritical. As recently as 1979, Bardhan began with the following observations: "Most of the standard theories of agricultural wage

determination used in the development literature do not have much empirical foundation. Yet by constant repetition they have now become part of the development orthodoxy." Bardhan, op. cit., p. 479.

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