CHILD LABOUR IN INDIA AND ITS DETERMINANTS, 1993-94 TO 2011-12

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DECLARATION

I do hereby declare that the dissertation entitled **"Child Labour in India and its Determinants, 1993-94 to 2011-12"** submitted by me in partially fulfillment of the requirements for the awards of the degree of Master of Philosophy of Jawaharlal Nehru University is my original work. This dissertation has not been submitted to any other university for the award of any other degree.

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ANAMIKA

Dedicated to my MOTHER

CONTENT

LIST OF TEXT TABLES

LIST OF FIGURES

LIST OF APPENDIX TABLES

Chapter I
INTRODUCTION

1.1 Background

The rise in India‟s growth in output and employed has been largely associated with the kind of labour market that is informal in nature. Child labour is a complex problem that is basically rooted in poverty. The elimination of child labour is a priority and is being implemented at the grass roots level in India. A huge number of non-governmental and voluntary organizations are involved in this process along with national and international organizations.

Childhood is a period of school-learning, of recreation, of physical, mental and social development, and not primarily of income bearing work. The spread of mass education and elimination of child labor are the two interrelated features of development of children. The prevalence of child labor can be into two broad groups: demand-side and supply-side factors. On the demand side, the segmented labor market and demand for low-wage labor or specialized labor is used to explain the presence of child workers. On the supply side, most importantly, poverty is a major contributor to child labour. According to NSS data in 2011-12, 78% of India's child labour is found in rural area and 22% in the urban area. Literature on this subject focuses on the child labour in factories and cottage industries across urban India. Little has been documented on the wide prevalence of child labour across rural India. The key difference in this practice between rural and urban areas is that it is much more difficult to measure child labour in rural areas, especially because of the widespread prevalence of "invisible" forms of child labour: activities assisting parents, relatives, etc. in household chores and/or unpaid labour. These activities contribute to the overall welfare or output of the household, but are not captured in national surveys. Further, very little has been documented on the economic characteristics of the household to which these children belong to. Another important aspect that has been neglected is the occurrence of child labour among the social groups like scheduled caste, scheduled tribes and other backward caste groups where the incidence is relatively high in India. In this context it is important to understand the incidence of child labour in India the social and economic context.

1.2 Definition of Child Labour

Definition of child labour has been subjected to intense debate in the recent years and it has been approached in many ways. The International Labour Organization, a key player on this issue, has a broad definition and it defines 'child labour' as "any work that deprives children of their childhood, their potential and their dignity, and what is harmful to their physical and mental development. Work is described as that which is mentally, physically, socially and morally dangerous to children and work that interferes with the children schooling by depriving them the opportunity to attend school, by obliging them to leave school prematurely or that demands them to combine school attendance with heavy work."[1] There are others who believe that "the concept of child labour should be restricted to the spheres of production and services that interfere with the normative development of children and a single estimate of child labour which includes children who are engaged in hazardous work as well as children who do non-hazardous work. Children who work full time and part time, children who work for wages and who work as unpaid family workers is detrimental for policy purposes".[2]

Broadly, child labour has been understood by the following characteristics:

1. Those children who work in exploitative and hazardous conditions.

2. Any child engaged in an economically gainful employment or activity.

3. Any child engaged in a work (household work) that can interfere with his/her schooling.

4. Any child not enrolled in any school and not engaged in the workforce/gainful activity (the "nowhere children") so this implies that anyone not in school must be working somewhere.

Overtime, the estimate of child labour has expanded from incorporating the features of first definition to the second, and recently many authors and activists have been advocating the third and the fourth characteristics too. While the first characteristics is restricted to the more extreme forms of child labour but this definition ignores an important segment of children working elsewhere. The third definition is too broad that parents not convinced or aware of the benefits of

[1] www.**ilo**.org/ipec/facts/lang

[2] Lieten K 2001: "Child Labour: questions on magnitude", in: Lieten K & White (Eds), Child Labour: Policy Options, Amsterdam, Aksant Publication, p53.

schooling their children (male or female) cannot automatically be inferred to be exploiting child labour by engaging their children in household work. At the same time, it is unquestionably the work that adds to the economic management of the household and interferes with the schooling of the child. In this study, only one segment is considered separately - the child labour segment, which includes all children employed in economically gainful employment. Globally the age group considered for child labour is 5-17 years. In the present analysis, all the full time and part time working children in India belong to 5-14 age groups are included. The population between 0-4 years age group has not been included in total child population as it is not relevant for the definition of child labour as the ratio being measured is based on the universe of children who fall within the definition of child labourers, and this age group is excluded from this segment. Further,. Hence, the analysis is focused on the incidence of child labourers in the 5-14 age group.

1.3 Importance of the work

Relatively little has been documented with a quantitative assessment of child labour, where the activity type and compensation is the outcome of a complex interplay between various social and economic factors. To simplify, most of the existing studies on child labour have firstly tended to pool the sex-wise data for all the social groups of the society. This aggregation prevented the identification of the core-social groups that the child labour belongs to. Secondly, very few studies have been able to identify the differences in the types of work performed by boys and girls. Thirdly, the economic characteristics of the households from which child labour came have not been examined in detail. Moreover, the impact of parental education on the phenomenon of child labour has been largely ignored in the existing studies. Thus, it is hard to say whether deprivation, (which is in the form of lack of education), is distress induced or it is a non distress induced phenomenon, involving factors other than poverty.

In the present study, child labour has been examined at the state level by gender, sector, and social groups. The nature and type of work that boys and girls undertake in different economic activities has been studied in detail. Further, the household characteristics' of the children whose work is directly productive has been analyzed in detail. These household characteristics include land owned, occupation pursued, poverty level, and education of head of the households. In this study an attempt has been made to systematically estimate the incidence of child labour at the

state level. Finally, building on previous studies on determinants of child labour in India, we have attempted to identify the causes by capturing the direct and the indirect impact of relevant economic factors on the incidence of child labour. This study has attempted to examine child labour at state level, this study focused only on 15 major states. They are Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Jammu and Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal.

1.4 Objectives

Based on the issues discussed and review of literature, the present study focuses on the following objectives. The specific objectives of the study are as follows:

- To estimate the incidence of child labour among the social groups (schedule tribes, other backward caste, and others), gender (male and female), and sectors (rural and urban) during 1993-94 to 2011-12.
- To examine the types of economic activities in which the child labourers are engaged during 1993-94 to 2011-12.
- To analyse the economic and social characteristics of the households of the child labour, in terms of their land ownership, educational and social background.
- To analyse the determinants of child labour in India.

1.5 Research Questions

Based on reviewing the literature research questions arises are:

- What are the factors responsible for children being involved in workforce in India?
- What are the economic activities in which child labourers are engaged across states in India?

1.6 Hypotheses

- Incidence of child labour is negatively associated with size of landholding.
- Incidence of child labour is positively associated with the households involved in agriculture and allied activities.
- Incidence of child labour is positively associated with illiterate head of the households.

- Incidence of child labour is negatively associated with income of the head of the households.
- Incidence of child labour is varies with the caste background of the household.

1.7 Data Source

To generate estimates of child labour, one of the most comprehensive and widely recognised sources of data is the one collected by the National Sample Survey Organisation. The NSSO was set up in the year 1950 and since then has been collecting data at both state and national levels. Since in starting, it has conducted annual surveys using a small sample till about 1974. However, since 1972-73 NSSO started conducting large sample based Quinquennial surveys on employment and unemployment situation in India every five years. Since, then these five yearly surveys have been conducted in 1977-78 (32^{nd} round), 1983 (38^{th} round), 1987-88 (43th round), 1993-94 (50^{th} round) and 1999-2000 (55th round), 2004-05 (61^{st}round), and 2011-12 (68^{th}round). For the present study, the employment and unemployment survey conducted in 1993-94, 1999-2000, 2004-05, and 2011-12 has been used. Data in the survey is furnished at the household as well as at the individual level.

These surveys not only provide information on the employment status and the occupation pursued but also information related to:

- Land holding sizes (landless, marginal, small, semi-medium, medium and large). Educational levels; (illiterates, primary educated, middle, secondary, and higher secondary and above).
- Demographic features and social background of the households.

1.8 Methodology

The NSS has adopted the approach of work or employment based on the activities pursued by the persons during specified reference period. This approach is based on the reference period used in assigning the working status. In this study the analysis of the magnitude of child labour is based on the addition of both the status i.e. Usual Principal and Subsidiary Status (UPSS) which is the following:

1. Usual Principal Status[3]- A person who is engaged relatively for a longer time during the reference period of 365 days in any one or more work activities is considered as principal status worker.

2. Usual Subsidiary Status[4]- those persons who had worked at least for 30 days during the reference period of 365 days preceding the date of survey.

Participation of children working in the economic activities has been analysed as per national industry classification (NIC). The specific industry of work is obtained from the National Industrial Classification of 1987 for the year 1993-94, 1998 year for 1999-2000 financial year, 2008 year for 2004-05 and 2011-12 financial year. The detailed activity categories classified on the basis of "employed persons" included under usual principal and subsidiary status are as follow:

Activity status (Principal Status + subsidiary status-UPSS) and its Activity Categories:

Activity Category code	Description
11	Worker in Household enterprise (self employed): own account worker.
12	Worked in Household enterprise (self employed): employer.
21	Worked as helper in Household enterprise (unpaid family worker)
31	Worked as regular salaried/wage employee
41	Worked as casual wage labour in public works
51	Worked as casual wage labour in other types of work
81	Sought or seeking/available for work (Unemployed)
91	Attended educational institution-91
92	Attended domestic duties only.
93	Attended domestic duties & was also engaged in free collection of goods (vegetables, roots, fire-wood, cattle feed, etc.), sewing, tailoring, weaving, etc. for household use
94	Rentiers, pensioners, remittance recipients, etc.
95	Not able to work due to disability
96	Beggars, prostitutes.
97	Others
11-97	Total Population

Source: National Sample Survey 2011-12 (Block 5.1 col. (3))

[3] NSS-employment and unemployment survey report 2011-12 page no. 80
[4] NSS-employment and unemployment survey report 2011-12-page no. 80

The incidence of child labour has been examined for three categories of social groups:

- Scheduled castes/ Scheduled Tribes

- Other Backward Castes

- Others (Non SC/Non ST/Non OBC)

Furthermore, the incidence of child labour has been examined by gender i.e. male and female. The incidence of child labour has also been analyzed by age groups (5-14 age group).

Incidence of head of the households of child labour among poor and non-poor has been calculated as the number of persons living upto the state specific poverty line to the total state population of the head of the households of children (under 5-14 age group) multiply by 100.

Statistical Techniques: Logit Model has been used in this study to analyse the variables which influence children to get into workforce during period (1993-94 to 2011-12). We used Logit model in this study because we have dichotomous dependent variable that is child labour (1- participation in any economic activities, 0 otherwise) and we applied Logistic Regression for the year 1993-94, 1999-00, 2004-05, and 2011-12 separately. Hence, we have multiple linear regression equation in which we have one independent variable as child labour and five explanatory variables. The equation is:

$$Y_i = \beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\beta_5X_5+u_i$$

Where:

Y_i : Child labour (1- participation in any economic activities, 0 otherwise)

β_0 : Intercept

$\beta_{1 \text{ to }} \beta_5$: slope coefficients of their respective explanatory variables (X_1 to X_5)

X_1 : Social group

X_2 : Educational background of head of the households of child labour.

X_3 : Employment status (by Economic activity) of head of the households of child labour.

X_4 : Land holdings

X_5 : Income level on the basis of MPCE of head of the households of child labour.

u_i : Error term.

Incidence of child labour calculated on the basis of Workforce Participation Rate (WPR) under the age group 5-14 year. WPR calculated as working population of children under 5-14 age group divided by total number of children population under the same age group and multiply it by100.

$$WPRi = \frac{\mathrm{W}i}{\mathrm{P}i} * 100$$

Where: WPR = Work Participation Rate of child labour (under 5-14 age group).

W = Working children (under 5-14 age group) in any economic activities.

P = Total child Population (under 5-14 age group).

i = Year under consideration.

1.9 Structure of the Study

This study is based on fifteen major states namely Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Jammu and Kashmir, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Orissa, Karnataka, Tamil Nadu, Uttar Pradesh, and West Bengal. This study does not included Himachal Pradesh and Kerala due to insufficient number of observations.

The present study has been divided into five chapters. Chapter one deals with the introduction of the child labour in India , definitional aspects of working children, importance of the study, objectives, research questions, hypothesis, data source, methodology and structure of the study. Chapter two deals with literature review and emerging issues from literature review.

Third chapter has been devoted to analyse the incidence of child labour and estimate the incidence of child labour among the social groups (SC/ST, OBC, and „others") and by gender (male and female) as well as types of economic activities in which the child labourers are engaged in India. This whole objective has been analysed across states.

The social and economic characteristics of head of the household"s of the child labourers have been examined in chapter four and the results of Logit Model has also presented in the same chapter that gives the factor that responsible behind children being involved in child labour. And the last chapter includes the summary, conclusions and policy implications of this study.

Chapter II

Review of Literature

2.1 Introduction

Child Labour abolition has become part of developmental process at National and International level. Still, in this modern world, social issues like child labour are highest in third world countries including India. Child Labour has direct linked with poverty, health, education, adult unemployment, human development and over all development of the society.

Literature on child labour has been reviewed under the following themes.

1. Conceptual issues and estimates of child labour;
2. Participation of children in economic activities
3. Determinants of Participation of Children in Economic Activities.

2.2 Conceptual issues and estimates of child labour

Literature on child labour is marked by a substantial debate on what constitutes child labour, the various definitions/concepts of child work, and, resultant estimates. A review of current literature on 'child labour' reveals that on the one hand, there is an official definition of 'child labour' which is conventional and restrictive in nature and on the other hand there is definition which is broader one. The official definition is obtained from Population Census and National Sample Survey, which are the two main government sources of information on child labour. The definition of a worker, adopted by these two government sources refers to those children who are employed either as paid workers or engaged in production related activities in which at least a portion of the produce is marketed. Those children who work as unpaid workers in domestic duties are not included in this definition. The proponents of the official definition argue that a child is considered working if the work he/she is engaged in interferes with their physical development, with their possibility to go to school and with their need for recreation. The official definition incorporates this concept of work and, unpaid household work is incidental in nature and cannot be classified as child labour in the strict sense of the term (Lieten: 2001).

The broader definition on child labour, on the other hand, includes all those children 'who are not accounted for in the official statistics and they neither are in school nor are listed as working. Such children are termed as 'nowhere children' (Chaudhri, 1996) or 'invisible children (Jayraj and Subramanian, 2002). Many supporters of this definition believe that a child who does not go to school can be assumed to be a working child especially in the rural areas (Sinha, 1996, Ramchandran, 2002). Such work may not qualify for official classification as 'child labour' but it is certainly not „devoid of work"[5]. The estimates for 'child labour' including these children would be larger than those based on the official definition that does not take into account the unpaid work. Kannan (2002) argues that discussion on child labour should be focused on children out-of-school, who is working in one way or the other to help themselves and/or their families. It is in this sense that Kannan uses the term 'child deprivation' which is a summation of estimates on child labour and the nowhere children.

These are some broad concepts used to analyze and estimate working children in India. The magnitude of children working would differ according to the definition. The child work participation rate (WPR) was about 8% - 9% for males and 4% - 5% for females (Srikantan: 1991, Jayraj: 1995; Duriasamy: 1997, Chaudhri: 1997, Deshpande: 2002). The child work participation rate for children working as marginal workers (i.e. children working for less than 6 months in a year) was 7% for males and 2.1% for females (Deshpande: 2002).

Another important source of information on working children is National Sample Survey (NSS), which gives data on employment and unemployment details every five years. NSS estimates give a higher incidence of child labour than the population Census. According to NSS, in India, an estimated number of working children was 21.45 million in 1983, as against just 13.7 million enumerated by the Census in 1981 (Deshpande: 2002). In1991, Population Census estimated that 11.4 million children were working in the rural areas and their work participation rate was 5.3% (Chaudhri: 1997, Deshpande: 2002, Daly et al: 2002). While the NSS estimates show that in 1993-94 12.4 million children were working and their WPR was 7.2% (Deshpande: 2002).

[5]This type of work combines household work that helps to manage the home and assist indirectly in many ways to contribute to livelihood. Collection of water, fuel, maintenance of the house and taking care of younger siblings all constitute work that is unpaid but indirectly assist the family members in generating income. Hence in the context of rural India, therefore, a non-working, non-school going child does not exist (Ramchandran, 2001; Kannan, 2001).

Studies employing the concept of child labour according to broader definition indicate that about 79 million are 'nowhere' children in rural India that is children neither working nor schoolingbut in realty these unaccounted children who do not go to school are the working children. (Sinha: 1996, Chaudhri: 1997). The level of child work is not uniformly distributed across the states. The incidence of child labour is highly concentrated in some of the states like Andhra Pradesh, Karnataka, Madhya Pradesh, Rajasthan, Orissa, Bihar and West Bengal most of which are less developed states. (Jayraj: 1995, Chaudhri: 1997, Daly et al: 2002, Dev and Mahendra: 2002).

There are only few Studies available on incidence of child labour based on secondary sources in India at state level. In rural Rajasthan according to 1991 Census 7.8% children were engaged in 'work that was higher than the national average. The proportion of working plus 'nowhere' children in rural Rajasthan was 50%, which was much higher than the national average of 36% (Bhattacharya, Mathur and Dash: 2002). In Tamil Nadu under the 'restrictive' definition according to NSS data (1987 -88) eleven out of every one hundred children were in workforce.

According to census of India “Child labour is the practice of having children (under 5-14 age group) employed in economic activity, on part or full-time basis”. The proportion of working children to total child population was 3.4% for boys and 3.0% for girls in 1981. By 1991, incidence of child labour declined to 0.5% for boys and 0.4% for girls that is the lowest in the country (Kannan: 2002).

Micro studies support the estimates on the incidence of child labour presented by the government sources. A study on the rural areas of Madhya Pradesh, Bihar, Rajasthan and Uttar Pradesh indicates that full-time child work is a significant but limited phenomenon in the rural north India where work is the primary activity of 9.4% of girls and 4.2% of boy's aged 5 to 14 (Leclrcq: 2002). This estimate is corroborated by the findings of another study in Uttar Pradesh where the author finds 5% of the children working (Lieten: 2000). Similarly, Nangia and Khan (2002) report that work participation rates for children were 15% for Andhra Pradesh, 8% for Madhya Pradesh and 3% for Orissa. An overwhelming majority of working children fall in the age group 10-14 years. Raj and Satpathy (2002) in their study to assess food insecurity and its impact on child labour in backward regions of rural Orissa employed the official definition of child labour to measure its magnitude. They define child labour as children who work either full-

time or part-time. They found that among the 282 households in the sample, there were 214 child labourers, in the school going age-group (5-14 years), thereby implying 1.32 child labourers per household. They point out that given an average family size of six persons, including the parents and four children it may be safely assumed that even if all the children in these families are in the age group, 5-14 years, at least one child of families in rural western Orissa could be classified as child labour.

The magnitude of child labour gets compounded when the unpaid work is included with the paid work done by children. A primary study in rural Bihar by Antony (2002) indicates that approximately 25% of all working children belong to agriculture and allied sector. While nearly 50% of all working children are engaged in household work. Further, 40% of children in the study area reported neither working nor going to school. Ramchandaran and Karan (2002) in their study on child deprivation in the tribal region of Jharkhand reported that 35% of the children in the age group 10-14 are full time workers. Even in the age group 5-9 years, 6% are full-time workers. Taking main and subsidiary occupations together the proportion rises to 58% for the age-group 10-14 and 11% for the age group 5-9. Additionally, 26.5% of the children in the age group 5-14 neither are in school nor at work. Vlasoff (1980), in his primary study of 371 households in rural Maharashtra measuresed the work participation rates of children by including paid work as well as unpaid work.

The definition employed to measure the magnitude of working children generelly determines the magnitude of a girl child worker. Girls are mainly engaged in unpaid household chores that in the official definition are not counted as 'work'. This is borne out from the fact that from Population Census and NSS, the estimates on girl child labour is lower than the boys (Jayraj: 1995, Srikantan: 1991, Deshpande: 2002, Kannan: 2002). But when we include the 'nowhere children', the incidence of child labour/or child deprivation increases significantly for girls and their incidence becomes higher than the boys. Hence, the incidence of children who are neither in school nor in the work force is higher for girls than for boys. Hence, there is a possibility that the conventional definition of a childlabour results in gross underestimation of magnitude of child labour especially for girl child. In 1991, at an all India level about 51% of nowhere children were girls as against 37.7% of boys (Kannan: 2002). The level of girl 'nowhere' child is not uniformly distributed across the states. Highest proportion of girl children who are not found in

school and not in the work force is found in Bihar (71 percent). Jayraj and Subramanian (2002) indicate that in Tamil Nadu, the number of working girl children was higher than the boys when the number of children who were not going to school nor were listed as workers were estimated. Kannan (2002) in his study indicates that deprived children are more in proportion for girls (54.1 %) than for boys (43%). Bhattacharya, Mathur and Dash (2002) similarly found a higher proportion of female 'nowhere' children in rural Rajasthan. The percentage of girl children in the age-group 5-14 years was 60% in the nineties. The study indicated that the WPR of boys in the age group 5-14 years has come down from 5.98% to 5.19% and that for girls have gone up from 5.26% to 7.88 per cent in the State during 1981-91.

Micro-studies strengthen the contention that a higher percentage of girls work than boys that is not adequately captured in the official definition. Vlasoff (1980) in his primary study in rural Maharashtra indicated that the length of economic participation of rural girls increased earlier than the boys. That is, girls under 12 years, on an average in a year worked more than the boys.[6] Similarly a village level study by Skoufias (1994) indicates that in rural Andhra Pradesh and Maharashtra, irrespective of age there were persistent differences in the time use between boys and girls. Girls were more likely to participate in labour market and home activities, whereas boys were more likely to be in school. Similarly, Leclrcq (2002), finds that in rural North India work is the primary activity for girls: (9.4%) and boys (4.2%) aged 5 to 14. In Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh, a higher proportion of girls were involved work than the boys. Antony (2002), in his primary study on six districts of Bihar, found out that 70% of all working children are engaged in household work and girls mostly do this work. By 1993 94,girls involvement in workforce was higher in Andhra Pradesh, Rajasthan and Tamil Nadu and lowest in Assam, Kerala and Punjab. Ram chandaran and Karan (2002) in their study in tribal region of Jharkhand report that cutting across caste and class difference the girl child in rural areas is discriminated against in terms of work. In the age group 5-9 years, 3% of the boys work, while the corresponding figure for girls is 8.5 %. In the age group, 10-14 years, 21.5% of boys are engaged work as against 49% of girls in the same age group. In the SC and ST groups, proportion of girl child worker is three to six-fold higher than that of male child ' worker. Similarly Nangia and Khan (2002) report in their study based on NFHS data, that in districts of

[6]Girls work included household chores, farm work etc. which are not generally considered gainful activities (Vlasoff, 1980)

Andhra Pradesh and Madhya Pradesh, work participation rates for female are higher than for male children.

From the above review on the magnitude of child labour it is apparent that there are divergent viewpoints on the definition of child labour. Broadly, the perspectives through which one can measure the number of working children are:

a. The official definition[7]: Children who work only in economically productive activity as part time or full time basis are counted as child labour.

b. The Broader Definition: Census estimate is short of what would be a minimal estimate according to the other perspective. There are a large proportion of children (especially girls) who are not accounted for in labour statistics but also not found going to school. Children not in school system are assumed to be working in activities that are necessary inputs in the economic management of the household. The government statistics do not account for these children. The broader definition considers all these as 'deprived' and includes them in the realm of child labour.

2.3 Participation of Children in Economic Activities

According to Census data, the three main industrial categories namely- cultivation, agricultural labour and forestry and fisheries account for 85% of the child labour. Out of this proportion more than half of the children between the age group 5-14 years are employed as agricultural labourers while a lesser proportion are engaged in their own farms as cultivators. (Chaudhri: 1997, Deshpande: 2002, Thorat and Sadana: 2003). There are variations in the participation in economic activities between boys and girls. According to 1991, census a higher proportion of girls was working as wage workers in agriculture than boys. The participation in the household and non-household industry was also higher for girls than boys, while boys were more likely to be engaged in cultivation on their farms and livestock rearing in the farm sector in rural areas. Further, data indicated that a higher proportion of boys work in construction, trade and commerce, transport and services of the rural non-farm sector, than the girls (Deshpande: 2002). NSS reports that incidence of child labour between 5-9 age group is very less, the bulk of

[7]Definition as per Census of India.

working children are concentrated in the age-group 10-14 years, with most of it occurring in the wage labour activity (Thorat and Sadana, 2003). According to both the Census and the NSS, the proportion of working children as agricultural labourers or wage labourers has been increasing while the proportion of children working on their own farms as cultivators has declined 1971 and 1991-2000 (Thorat and Sadana: 2003, Deshpande: 2002, Chaudhri:1997).

Literature on type of employment of working children is limited at state-level. There are only a few studies that have analyzed type of employment of children selecting a state of India as a unit of analysis. A study on Tamil Nadu which is based on Census data, reported that 99% of working children in rural Tamil Nadu are employed in agricultural labour, cultivation and household industry. NSS data for Tamil Nadu provides a similar finding and additionally it reports that casual labour is predominant mode of employment in the farm sector than the non-farm sector in rural Tamil Nadu (Jayraj and Subramanian: 2002).

In India, by 1993-94, Andhra Pradesh, Rajasthan and Uttar Pradesh consist high Incidence of child labour and in 2011-12 ,Bihar, Uttar Pradesh, and West Bengal showed higher incidence under 5-14 age group. A few micro studies have been carried out in these states to understand the predominant form of work that working children are engaged in. Broadly, there are two types of economic activities. In the dry land agricultural regions which cover the states of Andhra Pradesh, Gujarat, Madhya Pradesh and Maharashtra, the nature of work that children are engaged in is predominantly non-formal (unpaid) work. This includes activities such as tending crops in their own farm and animal husbandry. Of the total labour engaged in collection of fuel, fodder, fiber and food items from the CPR's, 70% were children (Jodha and Singh: 1991; Skoufias: 1994). It is important to mention here that a study in the late nineties in Andhra Pradesh reported a higher proportion of children engaged in wage labour than working on their own farm. Another study on rural Maharashtra and Karnataka reported that children are predominantly engaged in animal husbandry followed by working on their own farm (Vlasoff: 1980; Kanbargi and Kulkarni: 1991; Shariff: 1991).

In contrast to the engagement of child labour in informal (unpaid) activities in the dry land agriculture states, their engagement in formal (i.e. wage earning) activities was much lower. Of the total wage earners, children constituted only 1% predominantly working in pod picking

process (Jodha and Singh 1991, Skoufias: 1994, Vlasoff: 1980). Similarly in rural Karnataka children spent less time working for wages and more on directly productive work like tending livestock and working on their own farm (Shariff, 1991; Kanbargi and Kulkarni,1991). Most of the literature acknowledges noticeable differences in the time allocation patterns of boys and girls in these states. In rural Maharashtra, girls had a considerably higher participation rates in formal/labour market activities compared to boys. In addition, it is reported that the participation rates of girls in productive activities within the household is consistently higher than those of boys. Majority of the girls devoted moretime to domestic activities against to crop production and animal husbandry activities which areperformed by boys (Skoufias: 1994). However, in rural Kamataka, differentials in market work (wage based work) between boys and girls were not observed (Kanbargi and Kulkarni: 1991).

Similarly, micro-studies carried out at village level in states of Bihar, Madhya Pradesh, Rajasthan and West Bengal found wage labour was not a dominant work pursued by children. Children are found working predominantly on unpaid agricultural and non-agricultural activities especially in collecting firewood, cow dung for fuel, animal grazing and working as helpers on their own farm While Boys largely carry on labour activities, girls are engaged in domestic duties and household work. In Madhya Pradesh it is reported that a large majority of girls also work as agricultural labourers besides carrying out domestic duties. (Leclercq: 2002, Nangia : 2002, Antony: 2002, Ramchandaran and Karan: 2002).

In some parts of India where majority of children work for wages micro-level studies carried out in Orissa, Gujarat, Punjab and Tamil Nadu reported that a significant proportion of children are found working primarily as attached/permanent agricultural labourers followed by casual labour. Majority of children working for wage work in agricultural operations like weeding, harvesting, cleaning and sieving. Girls by a higher proportion are engaged in productive household work while the boys work as agricultural labourers, especially in parts of Tamil Nadu and Punjab (Raj and Satpathy: 2002, Nagrajan: 1997). Hence, from the above review it is clear that empirical studies on the nature of work performed by children indicated that wage employment in agriculture for children is not a significant phenomenon in majority of the states in India. These micro level empirical studies indicated that predominantly children work on their own farms as helpers or are engaged in animal husbandry. This is reflected at the secondary level through

Population Census only for some of the states like Bihar, Karnaataka and Maharashtra while for Andhra Pradesh, Madhya Pradesh and Rajasthan it does not. Primary level studies carried out in states of Orissa, Gujarat, Punjab, Tamil Nadu and West Bengal reported majority of working children are engaged as wage labourers while a lesser proportion are engaged in unpaid agricultural activities. Interestingly the similar finding was noticeable at the secondary level through Population Census and National Sample Survey for all these states.

2.4 Determinants of participation of Child Labour in economic activities

Many studies have attempted to explain the reasons for the involvement of children in work. These studies have examined the processes underlying the dynamics of child labour in India, and have in focused specially on the impact of poverty on children's participation in work. Various aspects underlying the prevalence of child labour have been reviewed. In the work of Basu and Van (1998) captured the importance of poverty figured that attributed a crucial role to income and poverty variables. On the basis of Pakistan data Ray (2000a), Bhalotra (2000) provided evidence to show that household poverty is a significant determinant of wage based child labour employment. Evidence provided by Jayraj (1995), Chaudhri and Wilson (2001) and Ray (2000b) also showed that household poverty is a significant determinant of wage based child labour employment. Deshpande (2001), in a state level analysis of India, observed a positive relationship between the female child work participation and incidence of poverty in rural area. Duriasamy (1997), Chaudhri (1997), Chaudhri and Wilson (2001), Dev and Ravi (2001) by employing net state domestic product in agriculture and monthly per capita expenditure of households (both proxy variables for poverty levels) in rural areas found a negative relation with the work participation rates of children. However, some researchers pointed towards lack of definite evidence on the inter-linkage of poverty and child labour. Bhatty (1998), and Lieten (2000), argued that poverty has in itself only a limited role in explaining the incidence of child labour. They have stressed inequality (rather than poverty) in the distribution of income, particularly in the sources of income such as agricultural land.

Some studies have gone beyond the income (or poverty) variable and have analyzed the impact of various determinants of income level such as prevailing wage rates and land owned by the household. Kanbargi and Kulkarni (1991) and Skoufias (1994) in their studies found that in

households owning less than 10 acres of land had a greater need for productive work of children than in households owning large land holdings. But, Jayraj (1995), Chaudhri and Wilson (2002), Leclercq (2001), and Gumber and Gupta (2002) reported the opposite results. Nagrajan (1997) also observed that improvement in holding size does not increase child participation in work. In fact, it increased the participation of the children, particularly of boys, in the school. The aspiration level of boys for education also rises with the size of holding. Further, Nagrajan also found a favorable impact of increased farm income on withdrawal of the child labour from work.

Another important determining factor for work participation rates of children is the significance of children's contribution to household income. Leclercq (2001) have indicated in their study that children's direct contribution to household income constituted a fraction of adult wages although the days spent by them on agricultural and non-agricultural wage labour was relatively high. Child labour often share the task given to adult workers and are given a lower wage rate than to the adult worker. They further indicated that the indirect contribution of children to the household income generated through their involvement in household work far exceed the direct contribution.

Education and child labour have a strong positive linkage. Adult literacy is observed to have a positive influence in the reduction of child labour. Nagrajan (1997), Duriasamy (1997), Leclercq (2001), and Ray (2000) all indicated this phenomenon. According to Chaudhri, children‟s enrolment rate at primary level and middle school (proxy for education) and per child educational expenditure to indicate a negative relation with the incidence of child labour. Leclercq (2001) and Dreze and Kingdon (2001), found that several elements of school quality improve enrollment, and grade attainment, with a large impact of mid-day meals, especially for girls.

This review of evidence on the causes of child labour in rural India indicated that it is the income level of the household which matters the most in the decision to push the children to work (particularly the wage base labour). The statistical evidence about the direction of causality is not always clear and straight forward. Although, favorable access to sources of income (measured in terms of indicators like a lower percentage of agricultural labour and less inequality in the distribution of land) does help to reduce child labour. Low proportion of agricultural wage

labour, low inequality in landholding, and larger farm-size help to improve the access to income, and reduces the participation of children in work. In fact, child participation in work is increases presumably through higher involvement in household enterprise. It is possible that the increase in farm-size (particularly among the household located at the lower end of the land size distribution) and the number of smaller size of holdings encourage participation of family members including children (as they cannot afford to hire outside labour). But this may not be the case among large land size holdings with greater command over land and resulting higher income level.

Since these studies do not examine child labour participation rates over the entire spectrum of farm size (with some exceptions) and also do not include the analysis of child labour participation rates for landless and land owning households. Perhaps certain methodological problem some of the variables related to land reveals conflicting statistical results. It is necessary to recognize that some of the problems (or conflicting results) in the statistical exercises of causal analysis of child labour may be due to the methodology used in the estimation of the impact of some variables. For instance, one of the features of the state level (or district level) cross-sectional studies on the determinants of child labour is that most of them have used a single equation approach. There are two limitations of this approach (Thorat: 2000). Firstly many of determinants of child labour, such as income, agricultural productivity, land ownership, wages, employment, etc. are generated from the same economic process and are relatively related. The higher wage rate and employment, or high educational attainment may be generated from the same sources like the high farm size. In other words these variables are endogenous and are affected by common economic processes. Therefore, it is necessary to recognize the inter-linkages and capture the influence of exogenous (or real independent) factors to estimate the magnitude of their impact.

Secondly, some of these variables affect the child labour in multiple ways. For example, high agricultural productivity helps to reduce child labour directly through increased income and also indirectly by improving the wages and employment. Similarly, the higher expenditure on education and rural infrastructure also help to reduce child labour directly through favourable educational facilities and indirectly through improvement in rural non-farm employment.

Therefore, it is necessary that these direct and indirect effects are properly captured to estimate the overall impact of income on a child labour participation in work.

2.5 Emerging Issues from the Literature Review

It is evident from the literature available on working children that:

a) Divergent views prevail in defining a 'working child'. The resultant estimates on the magnitude of child labour differ with the definition of child 'work' employed. Official definition measures a child work only in economic activity which is enumerated and it under-estimates the magnitude of child labour. Many researchers define child labour as all those children who are working not only for wages but also in the household which ' indirectly contribute to its economy. These children, in official statistics, are neither found in the labour pool nor in the school. The estimated magnitude for working children according to this definition increases manifold.

b) The differences that prevail at the definitional level also prevails at the type of work these children engage in. Within the government sources according to population census and national sample survey the predominant form of activity that children are engaged is wage labour. On the other hand, most of the micro level studies (barring a few) indicate that children working for wages in rural parts of India are an extremely limited phenomenon. Most of the children work in household activities which are productive in nature and it contributes indirectly to the economy of the household. Gender differentiation comes into play with boys contributing to agriculturally productive work while girls to domestic duties. Some studies at micro level indicate that girls work twice as much as boys. Hence, gender bias in participation in labour force is towards girls.

c) Poverty, as reflected in the income level, emerges as one of the major determinants of child labour. Farm-size and distribution of land-holdings (as factors of income generation) emerge as important determinant of child labour. Adult literacy rates too emerge out to be important determinant in the studies reviewed.

CHAPTER III

PATTERNS OF CHILD LABOUR IN INDIA

3.1 Introduction

This chapter examines the incidence of child labour, educational background of child labourers, and the type of economic activities in which the child labourers are employed in India. The incidence of child labour has been measured as proportion of child labour under 5-14 age group to total child population under the same age group. According to the constitution of India, a child is defined as an individual in the 0-14 age group. In the present analysis, the population between 0-4 years age group has not been included in total child population as it is not relevant to the definition of child labour as the ratio being measured is based on the universe of children who fall within the definition of child labourers, and this age group is excluded from this segment. Further, all the full time and part time working children in India belong to 5-14 age groups. Hence, the analysis is focused on the incidence of working children in the 5-14 age group.

According to Neera Burra (1995), a working child is 'basically a child who is deprived of the right to education and all out of school children are child labourers in one way or the other' (Burra 1995, p8) and considers 'nowhere' children to be a potential pool of child labourers.

Kannan (2002), believes that the 'discussion on child labour should be focused on out-of school, children who are working in one form or another to help themselves and/or their families (Kannan 2002, p. 395). He defines all out of school children as 'deprived children'. Lieten (2002) on the other hand argues that by including all out of school children with child labour is like 'mixing of apples, oranges and bananas'. 'The fruit bowl, thus, constructed is indeed attractive in the sense that it forcefully draws the public attention to the intense social injustice that still affects the majority of children in India. It also puts pressure to search for causal factors and policy solutions (Lieten 2003, p.453).

Table 3.1 Number of child population and child labour during 1993-94 to 2011-12

Years	Total population of Children (in Millions)	Number of Child labour (in Millions)	Number of Male Child labour (in Millions)	Number of Female Child labour (in Millions)	Incidence of working children = (No. of children 5-14 age group)/Total number of children (5-14 age group)*100
1993-94	175	11.3	6.16	5.19	6.5
1999-00	206	9.5	5.04	4.43	4.4
2004-05	207	6.9	3.68	3.25	3.4
2011-12	221	3.1	3.23	1.88	1.5

Source: NSS- Employment and unemployment survey report, 1993-94, 1999-00, 2004-05, and 2011-12.
Note: the above table is estimated under 5-14 age group.

This chapter has been organised as followed, Section I has been devoted to examine the incidence of child labourers in India by gender and social groups, and section II examines the child labour engaged in economic activities as well as their employment status.

3.2 Incidences of child labourers by gender and among social group

NSSO defines the Usual Principal and Subsidiary Status (UPSS) as that covers those who are employed on more or less regular basis in a year and those- who are non-workers by UPS[8] but have been employed in some subsidiary economic activities. The incidence of child labour under 5-14 age group at the aggregate as well across social categories has examined in this section.

At the all India level, incidence of child labourers reported 6.5% in 1993-94, 4.4% in 1999-00, 3.4% in 2004-05, and 1.5% in 2011-12 (Table3.2). This table also showed incidence of child labourers across major state in India during 1993-94 to 2011-12. Andhra Pradesh showed highest incidences of child labour during 1993-94 to 1999-00 and, on the other hand, Uttar Pradesh registered highest incidences of child labour during 2004-05 to 2011-12. And, Haryana showed lowest incidence of child labour during 1993-94 to 2011-12 except in the year 2004-05. Tamil Nadu captured lowest incidences of child labour (1.5%) during 2004-05.

[8] a person to be 'working' if he/she has been engaged relatively for a longer time during the reference period of 365 days in any one or more of the gainful economic activities.

Table 3.2 Incidences of child labour to total child population in India (under 5-14 age group), 1993-94 to 2011-12.

(Per Cent)

States	1993-94	1999-00	2004-05	2011-12
Andhra Pradesh	12.1	10.3	6.2	1.6
Assam	2.6	2.6	1.8	0.5
Bihar	2.7	2.3	1.6	1.1
Gujarat	3.3	4.8	2.5	1.7
Haryana	2.5	1.4	1.7	0.2
Jammu and Kashmir	5.6	1.6	2.8	0.8
Karnataka	9.3	6.8	4.5	1.2
Madhya Pradesh	6.0	4.4	3.3	0.7
Maharashtra	4.5	3.6	3.4	1.1
Orissa	6.2	4.0	4.9	1.4
Punjab	2.5	2.9	1.7	1.0
Rajasthan	10.3	7.9	4.9	1.4
Tamil Nadu	7.8	3.8	1.5	0.3
Uttar Pradesh	4.1	3.0	3.9	2.1
West Bengal	4.1	4.4	3.5	3.2
India	6.5	4.4	3.4	1.5

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12

Overall analysis of Table 3.2 reported that incidences of child labourers have declined at national as well as at state level during 1993-94 to 2011-12. This drastic changed in the incidence of child labourers might be due to increase in enrollment of children in schooling that might be possible by successful implementation of "The Right of Children to Free and Compulsory Education

(RTE) Act, 2009"[9]- amended in 2012, and "Child labour (Prohibition and Regulation) Act, 1986"[10] - amended in 2012, this act prohibits children under 14 age group from working in any occupation except their family business.

Table 3.3 Distribution of child labourer"s incidences in India, 1993-94 to 2011-12.

(Per Cent)

States	1993-94	1999-00	2004-05	2011-12
Andhra Pradesh	17.0	18.9	8.1	6.8
Assam	2.4	1.5	1.6	0.9
Bihar	5.6	6.2	6.0	10.7
Gujarat	2.4	5.0	3.7	5.7
Haryana	0.9	0.7	1.2	0.3
Jammu and Kashmir	1.3	0.3	0.6	0.5
Karnataka	8.6	8.0	5.9	3.5
Madhya Pradesh	10.7	9.4	9.8	4.4
Maharashtra	7.4	7.7	8.8	6.5
Orissa	5.0	3.4	5.6	3.4
Punjab	1.7	1.5	1.3	1.5
Rajasthan	10.2	10.4	10.2	6.0
Tamil Nadu	8.1	4.4	2.3	1.2
Uttar Pradesh	13.1	14.1	26.4	32.6
West Bengal	5.8	8.4	8.7	16.2
India	100	100	100	100

Source: Calculated by unit level NSS data - employment and unemployment survey- 1993-94 to 2011-12

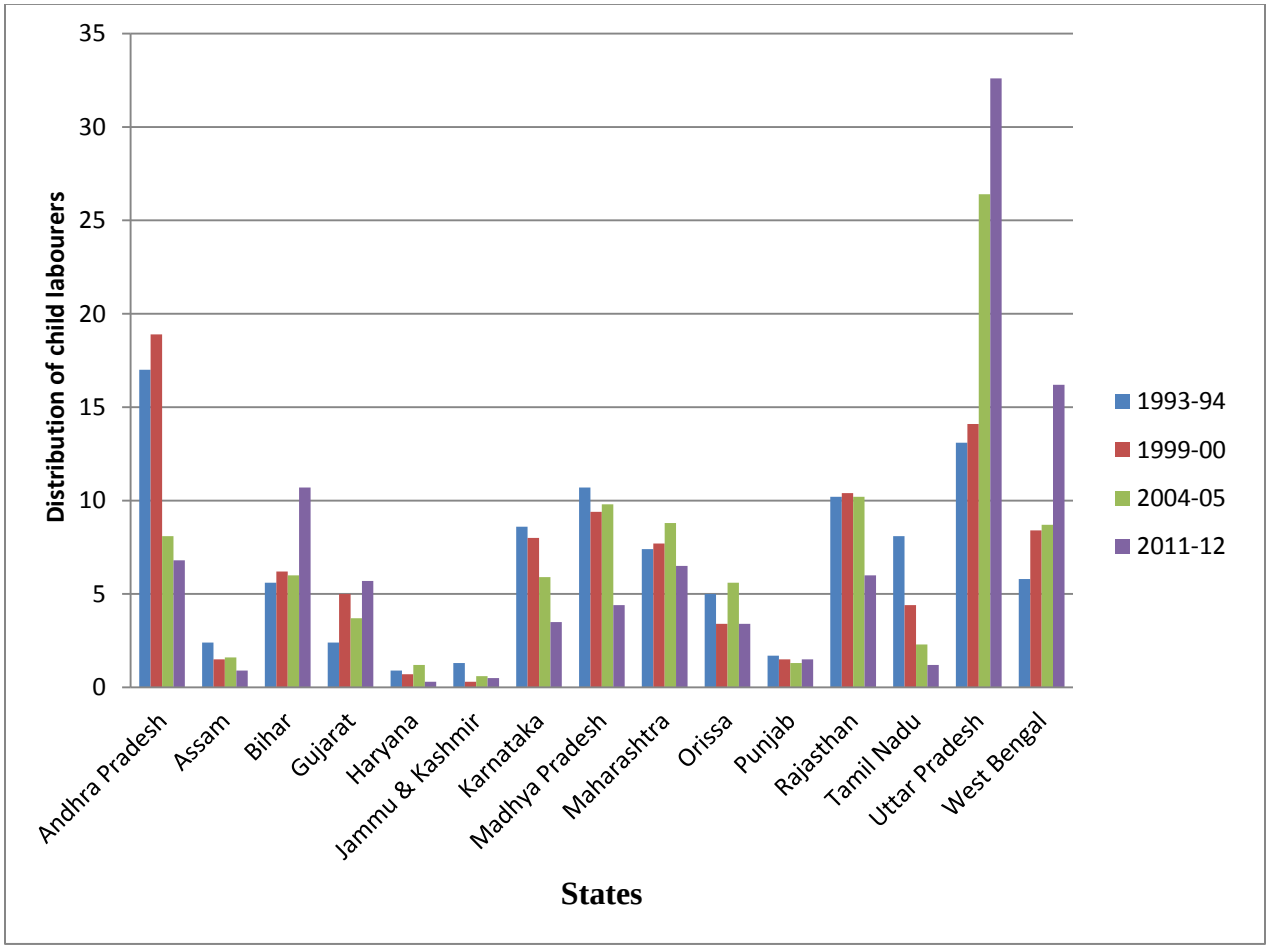
Table 3.3 showing distribution of child labourers in India during 1993-94 to 2011-12, where Andhra Pradesh registered highest proportion of child labour to total child labour population in India during 1993-94 to 1999-00 but the situation has changed during 2004-05 to 2011-12, this might be due to poverty and lack of education in Andhra Pradesh. And, during 2004-05 to 2011-

[9] http://mhrd.gov.in/rte Under this act, every child has a right to full time elementary education of satisfactory and equitable quality in a formal school which satisfies certain essential norms and standards.
[10] http://www.childlineindia.org.in/child-labour-prohibition-and-regulation-act-1986.htm

12, Uttar Pradesh registered highest proportion of child labour in India. During 1993-94 and 2011-12 Haryana reported lowest proportion of child labour to total child labour population in India while during 1999-00 to 2004-05 Jammu and Kashmir accounted lowest proportion of child labourer in India.

The pattern of distribution of child labour‟s proportion in India is shown in figure I. In this figure, during 1993-94 to 1999-00, the incidence of child labour was highest in Andhra Pradesh among the states. And, during 2004-05 to 2011-12, Uttar Pradesh registered highest proportion of child labour among the states but the proportion of Uttar Pradesh in child labour during 2004-05 to 2011-12 was higher as compare to Andhra Pradesh during 1993-94 to 1999-00.

Figure 1: Distribution of child labourer‟s proportion across states, 1993-94 to 2011-12



3.2.1 Incidences of child labourers by gender

At all India level, the male participation rates in the workforce were higher than female participation rate during 1993-94 to 2011-12. And, the proportion of male child labourers was slightly declined during 1993-94 to 2004-05 with (54.1 to 53%) while it increased to 58.3% in 2011-12 (Table 3.4).

Table 3.4 Gender-wise percentages of child labourers to total child (under 5-14 age group) population in India, 1993-94 to 2011-12.

(Per cent)

	1993-94		1999-00		2004-05		2011-12	
States	Male	Female	Male	Female	Male	Female	Male	Female
Andhra Pradesh	49.2	50.8	48.0	52.0	45.3	54.7	20.2	79.8
Assam	65.5	34.5	65.7	34.3	75.6	24.4	53.6	46.4
Bihar	71.9	28.2	69.9	30.1	69.9	30.2	58.0	42.0
Gujarat	50.3	49.8	53.4	46.6	58.2	41.9	60.4	39.6
Haryana	51.9	48.1	84.2	15.8	45.3	54.8	100	0.0
Jammu and Kashmir	51.4	48.6	60.3	39.7	29.8	70.2	52.2	47.8
Karnataka	53.4	46.6	51.3	48.7	51.8	48.2	64.2	35.9
Madhya Pradesh	61.3	38.7	59.1	40.9	42.6	57.4	62.7	37.3
Maharashtra	47.9	52.1	54.4	45.7	49.6	50.5	67.8	32.2
Orissa	58.2	41.8	46.0	54.0	54.9	45.1	48.5	51.5
Punjab	76.0	24.0	62.5	37.5	70.1	29.9	60.2	39.8
Rajasthan	36.9	63.1	38.2	61.8	39.6	60.4	43.4	56.6
Tamil Nadu	43.4	56.6	56.2	43.8	40.9	59.1	65.6	34.4
Uttar Pradesh	66.2	33.8	62.5	37.5	60.3	39.7	61.1	39.0
West Bengal	62.3	37.7	44.4	55.6	54.9	45.1	68.4	31.6
India	54.1	45.9	53.2	46.8	53.0	47.0	58.3	41.7

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12.

At state level, Punjab consisted of the highest proportion of male child labour (76%) in 1993-94, Haryana registered 84% in 1999-00 and 100% in 2011-12, and Assam accounted 75.6% in

2004-05 while Rajasthan consisted of the highest proportion of female child labour (63.1%) during 1993-94 to 1999-00, Jammu and Kashmir showed (70.2%) in 2004-05, and Andhra Pradesh accounted 79.8% in 2011-12. Table 3.4 showed that male child labourers accounted higher participation in the work force than female labourers. This finding is true at all India level while variation can be found across states.

3.2.2 Incidences of child labourers among social group

Incidence of child labor was highly varied at national as well as state level across different period of time. Due to inconsistency in estimation of social Group-wise proportion of child labourers (under 5-14 age group), 1993-94 round has not been included in this section. At the national level, during 1999-00, the highest incidences of child labour was found among SCs (41%) followed by OBCs (37%) and „others" (23%). During 2004-05, OBCs recorded highest incidence of child labourers with (42%) share followed by SCs (38%) and „others" (20%). Also in 2011-12, the same pattern as in 2004-05 could be observed. During 2011-12, the highest incidences were found in OBCs with (41%) followed by SCs (36%) and „others" (23%) (Table 3.5).

At state level, during 1999-00, highest incidence of child labour by SC social group was found in Orissa with 74%, highest incidence of child labour by OBC social group was observed found in Tamil Nadu with 73.5%, and highest incidence of child labour by „Others" social group found in Assam with 64%. During 2004-05, highest incidence of child labour by SC social group found in Orissa with 74.4%, OBC social group in Tamil Nadu with 70.6%, and Others" social group in West Bengal with 69.2%. In 2011-12, highest incidence of child labour by SC social group was found in Punjab with 70%, OBC social group in Tamil Nadu with 99%, and „Others" social group in West Bengal with 85%. The state of Tamil Nadu observed the highest percentage of OBC child labour to total child labour population from 1999-00 to 2011-12. And, its share slightly declined from 73.5% in 1999-00 to 70.6% in 2004-05 and increased gradually in 2011-12 to 99%. While Orissa consisted the highest percentage of SC child labour to total child labour population in Orissa from 1999-00 to 2004-05 and their proportion had increased from 73.6 to 74.4% during same time period. West Bengal consisted of the highest percentage of „Others"

child labour to total child labour population in West Bengal from 2004-05 to 2011-12 and their proportion was increased from 69% to 85% during same time period.

Table 3.5 Social Group-wise percentages of child labourers (under 5-14 age group), 1999-00 to 2011-12.

(Per cent)

	1999-00			2004-05			2011-12		
States	SC/ST	OBC	Others	SC/ST	OBC	Others	SC/ST	OBC	Others
Andhra Pradesh	38.3	46.3	15.5	26.4	53.0	20.6	30.1	65.9	4.1
Assam	22.1	14.1	63.9	39.8	8.1	52.1	61.0	0.0	39.1
Bihar	37.1	44.7	18.2	26.2	56.8	17.0	50.7	47.1	2.3
Gujarat	35.8	47.6	16.7	37.1	47.4	15.6	20.6	76.1	3.3
Haryana	39.6	27.6	32.9	52.3	14.5	33.2	65.0	21.2	13.8
Jammu and Kashmir	45.4	7.5	47.1	27.6	10.6	61.8	26.0	7.4	66.7
Karnataka	39.9	34.1	26.1	43.3	40.1	16.5	32.3	63.5	4.2
Madhya Pradesh	61.3	32.3	6.5	59.9	33.3	6.8	67.3	29.6	3.1
Maharashtra	47.8	24.8	27.4	32.8	39.3	27.9	51.3	32.0	16.7
Orissa	73.6	17.3	9.1	74.4	22.5	3.1	61.1	38.9	0.0
Punjab	62.1	10.7	27.2	49.6	32.6	17.8	69.9	0.1	30.0
Rajasthan	47.4	30.6	22.0	47.9	46.4	5.7	52.9	35.7	11.4
Tamil Nadu	23.5	73.5	3.0	28.6	70.6	0.8	0.8	99.2	0.0
Uttar Pradesh	28.4	50.2	21.4	27.0	57.6	15.4	31.8	50.5	17.7
West Bengal	32.7	6.3	61.0	28.0	2.9	69.2	12.8	2.4	84.8
India	40.6	36.7	22.7	37.7	42.3	20.0	36.0	41.0	23.0

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12

Table 3.5 concluded that during 1999-00, highest incidence of child labour was observed in SCs followed by OBCs and „Others" social group while during 2004-05 to 2011-12, OBCs recorded slightly higher incidence of child labour followed by SCs and „Others" social group. This is true only at national level while variation can be found at the state level.

3.2.3 Incidences of child labourers by sectors

Table 3.6 provides incidences of child labourers in rural and urban areas of India. At all India level, rural areas accounted highest incidence of child labourers (88.5%) than urban areas in 1993-94 and this pattern remained same during 1999-00 to 2011-12. But, proportion of child labourers in rural India continuously declined from 1993-94 to 2011-12 and reverse true for in urban India.

Table 3.6 Sector-wise percentages of child labourers (under 5-14 age group) in Indian Major States, 1993-94 to 2011-12

(Per cent)

	1993-94		1999-00		2004-05		2011-12	
States	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Andhra Pradesh	88.1	11.9	88.8	11.2	80.2	19.8	88.8	11.2
Assam	88.4	11.6	84.6	15.4	95.6	4.4	87.5	12.6
Bihar	95.0	5.0	90.4	9.6	89.7	10.3	92.7	7.3
Gujarat	82.0	18.0	88.0	12.0	77.8	22.2	73.6	26.4
Haryana	77.5	22.5	79.3	20.7	87.1	13.0	72.3	27.7
Jammu and Kashmir	95.6	4.4	91.8	8.2	62.7	37.3	90.0	10.0
Karnataka	89.4	10.6	89.2	10.8	93.0	7.0	90.3	9.8
Madhya Pradesh	94.9	5.1	93.7	6.3	89.5	10.5	83.8	16.2
Maharashtra	84.7	15.3	88.0	12.0	89.9	10.1	87.8	12.2
Orissa	95.1	4.9	96.3	3.7	95.7	4.3	79.4	20.6
Punjab	79.5	20.5	73.0	27.0	82.3	17.7	77.8	22.2
Rajasthan	94.2	5.8	93.2	6.8	86.0	14.0	90.1	9.9
Tamil Nadu	78.8	21.2	75.9	24.2	64.9	35.1	77.9	22.1
Uttar Pradesh	86.6	13.4	81.2	18.8	80.0	20.0	78.5	21.5
West Bengal	84.7	15.3	87.2	12.8	74.4	25.6	50.4	49.6
India	88.5	11.5	87.9	12.1	84.0	16.0	78.0	22.0

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12

This table showed that proportion of child labourers in urban India was very much lower than rural India but the proportion of child labourers in urban India had increased during 1993-94 to 2011-12. Across state, in rural India, Jammu and Kashmir registered highest incidence of child labourers (95.6%) in 1993-94, Orissa at 96.3% in 1999-00 and 95.7% in 2004-05, and Bihar at 92.7% in 2011-12 while Haryana accounted highest incidence of child labourers (22.5%) in urban India in 1993-94, Punjab at 27% in 1999-00, Tamil Nadu at 35% in 2004-05, and West Bengal at 50% in 2011-12. Table 3.6 concluded that rural India recorded higher proportion of child labour. Main reasons behind it could be poverty, lack of education and poor developmental process in the rural areas of India.

Overall analysis recorded the following:

- Incidence of child labourers has reduced from 6.5% to 1.5% during 1993-94 to 2011-12.
- Andhra Pradesh registered the highest distribution of child labourers during 1993-94 to 1999-00 while Uttar Pradesh captured the highest distribution of child labourers during 2004-05 to 2011-12.
- Male child labourers occupied highest proportion of child labour in India than female. This finding is true only at national level while variation can be found at the state level.
- Highest incidence of child labour was observed in SCs followed by OBCs and „Others" social group during 1999-00 while during 2004-05 to 2011-12, OBCs recorded slightly higher incidence of child labour followed by SCs and „Others" social group. This is true only at national level while variation can be found at the state level.
- Rural areas of India recorded higher proportion of child labour but their proportion of child labour in rural India has declined during 1993-94 to 2011-12.
- Proportion of child labour in urban India was very much lower than the share in rural India but the proportion has increased from 1993-94 to 2011-12 in Urban India.

3.3 Proportion of child labourers in economic activities.

The objective of this section is to examine the type of economic activities undertaken by child labour in major Indian states. The economic activities of both full-time and part-time child labourers are analyzed as per National Industrial classification (NIC) 2008. The National Industrial Classification grouped the economic activities under the following categories:

1) Agriculture
2) Fishing
3) Mining and Quarrying
4) Manufacturing
5) Electricity, Gas and Water supply
6) Construction
7) Wholesale and Retail trade, Repair of Motor Vehicles, Motorcycles and Personal Household Goods
8) Hotels and Restaurants
9) Transport, Storage and Communication
10) Financial Intermediation
11) Real estate, Renting and Business Activities
12) Public Administration and Defense, Social Security
13) Education
14) Health and Social Work
15) Other Community, Social and Personal Service Activities
16) Private Household~ with Employed persons
17) Extra Territorial Organization and Bodies

Classification of economic activities, this study follows the Central Statistical Office (CSO)[11] definition in which economic activities has been divided into three parts: Agriculture and Allied sector, Industrial sector, and service sector. Agriculture and Allied Sector includes Agriculture, Forestry and Fishing. Industrial sector includes Mining and Quarrying, Manufacturing, Water Supply; Sewerage, Waste Management and Remediation Activities, Construction. Service Sector

[11] Central Statistical Office (CSO) has divided Economic activities into three parts: Agriculture and Allied sector, Industrial sector, and service sector.

includes Wholesale and Retail Trade; Repair Of Motor Vehicles and Motorcycles, Transport and Storage, Accommodation and Food Service Activities, Information and Communication, Financial and Insurance Activities, Real Estate Activities, Professional, Scientific and Technical Activities, Administrative and Support Service Activities, Public Administration And Defence; Compulsory Social Security, Education, Human Health and Social Work Activities, Arts, Entertainment and Recreation, Other Service Activities, Activities Of Households as Employers; Undifferentiated Goods And Services-Producing Activities Of Households For Own Use, Activities Of Extraterritorial Organisations And Bodies.

At the aggregate level, more than 56% child labourers was engaged in agriculture allied activities during 1993-94 to 2011-12 but the proportion of children engaged in agriculture allied activity was declined continuously during 1993-94 to 2011-12. Industrial sector the second highest economic activity in which child labourers was engaged during 1993-94 and the proportion of children engaged in industrial activity was more than 14% and continuously increased during 1993-94 to 2011-12 but the proportion of children engaged in industrial economic activity was much smaller as compare to agriculture and allied activities. Also, there was increasing trend shown in third economic activity but the proportion was very small about 10% and it was increased with very low rates during 1993-94 to 2011-12 (Table 3.7).

At the state level, in 1993-94, Assam (29%), Bihar (10%), Haryana (16%), Jammu and Kashmir (3%), Maharashtra (11%), and Punjab (16%) accounted highest proportion of child labourers employed in service sector than Industrial sector. In 1999-00, Madhya Pradesh showed highest proportion of child labour employed only in allied agriculture activity with 89%. In west Bengal state where industrial sector was the preferable economic activity in which child labour (48%) was engaged in, Assam was the state where service sector was the preferable economic activity for the child labour (45%). During 2004-05, again Madhya Pradesh was the state where the proportion of children engaged in allied agriculture economic activity was highest among the other states but the proportion was lesser (85%) now as compared to 98% in 1999-00. Jammu and Kashmir with 49% highest proportion of child labour was engaged in Industry sector; while in Assam 26% of child labour with highest proportion was engaged in service sector (Table 3.7).

Table 3.7 Proportion of child labourer (under 5-14 age group) employed in economic activities in Indian major states- 1993-94 to 2011-12.

(Per Cent)

	1993-94			1999-00			2004-05			2011-12		
States	Agri. and allied. activities	Industry sector	Service sector	Agri. and allied. activities	Industry sector	Service sector	Agri. and allied. activities	Industry sector	Service sector	Agri. and allied. activities	Industry sector	Service sector
Andhra Pradesh	77.6	11.5	10.9	77.4	11.7	11.0	67.2	14.1	18.7	85.8	2.3	12.0
Assam	67.0	3.6	29.3	49.0	6.4	44.6	63.7	9.7	26.6	69.5	13.9	16.5
Bihar	82.1	8.0	9.9	70.4	16.4	13.2	69.4	11.2	19.4	76.5	16.5	7.1
Gujarat	74.2	14.1	11.7	76.1	12.6	11.3	75.7	4.6	19.7	81.8	2.0	16.3
Haryana	76.8	7.0	16.2	58.8	19.2	22.1	69.0	7.4	23.6	69.3	15.2	15.5
Jammu and Kashmir	97.3	0.0	2.7	85.9	11.6	2.5	50.6	48.8	0.6	86.2	3.8	10.0
Karnataka	77.7	15.6	6.8	81.2	10.3	8.5	75.6	12.7	11.7	88.5	5.3	6.2
Madhya Pradesh	91.4	4.6	4.0	88.6	5.8	5.6	84.4	8.8	6.7	74.6	10.4	15.0
Maharashtra	80.3	8.8	10.9	86.7	5.4	8.0	84.1	7.3	8.6	72.3	3.3	24.5
Orissa	80.3	11.8	7.9	72.5	24.0	3.5	69.4	24.0	6.6	62.4	31.0	6.7
Punjab	75.2	8.9	16.0	61.3	8.3	30.4	59.1	22.5	18.4	30.1	54.2	15.7
Rajasthan	90.9	6.6	2.5	89.7	5.6	4.8	63.8	26.3	9.9	57.8	37.4	4.8
Tamil Nadu	51.4	37.2	11.5	42.0	43.0	15.1	45.9	30.7	23.5	28.6	67.2	4.3
Uttar Pradesh	73.0	13.4	13.6	62.8	20.6	16.6	61.6	22.4	15.9	52.6	34.9	12.5
West Bengal	55.3	26.7	18.0	38.0	48.0	14.0	44.1	34.8	21.1	24.5	73.2	2.3
India	76.3	13.7	9.9	72.4	16.2	11.4	67.0	18.6	14.4	58.5	31.1	10.4

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12

During 2011-12, Karnataka, with 88.5%, was the state having highest proportion of child labour engaged in agriculture activity. West Bengal 73% was the state where proportion of child labour engaged in Industrial sector was relatively high. Maharashtra (24.5%) where proportion of child labour engaged in service sector was higher (Table 3.7).

3.3.1 Participation of child labourers in economic activities by gender

At national level, during 1993-94 to 2004-05, India had male child labourers dominating in agriculture allied economic activity but the trend get reversed during 2011-12 where the proportion of female child labour engaged in agriculture and allied sector was slightly higher than the male child labour (Table 3.8 (a)). In the Industrial sector, female child labour participation rate was higher than male child labour during 1993-94 to 1999-00 but the trend was reversed during 2004-05 to 2011-12 when the male child labour participation rate in Industrial sector become higher than female participation rate (Table 3.8 (b)). While the service sector always remain male dominating with more than 65% during 1993-94 to 2004-05 (Table 3.8 (c)).

Table 3.8 (a) Gender-wise participation of child labour (under 5-14 age group) engaged in agriculture and allied activities, 1993-94 to 2011-12

(Per Cent)

	1993-94		1999-00		2004-05		2011-12	
States	Male	Female	Male	Female	Male	Female	Male	Female
Andhra Pradesh	48.9	51.1	45.0	55.0	40.6	59.4	41.2	58.8
Assam	70.4	29.7	81.1	18.9	73.9	26.1	100.0	0.0
Bihar	72.1	27.9	73.8	26.2	68.2	31.8	57.1	42.9
Gujarat	43.0	57.0	48.2	51.8	51.8	48.3	79.5	20.5
Haryana	43.6	56.5	73.2	26.8	39.3	60.7	100.0	0.0
Jammu and Kashmir	50.1	49.9	61.2	38.8	44.6	55.4	91.4	8.6
Karnataka	48.9	51.1	45.8	54.2	54.1	45.9	100.0	0.0
Madhya Pradesh	61.5	38.5	59.9	40.1	40.4	59.6	36.4	63.6
Maharashtra	45.2	54.8	51.8	48.2	44.1	55.9	93.6	6.4
Orissa	62.0	38.0	47.7	52.3	59.7	40.3	44.0	56.0
Punjab	73.3	26.7	66.5	33.5	65.2	34.8	78.3	21.8
Rajasthan	35.6	64.4	35.1	64.9	27.9	72.1	73.6	26.4
Tamil Nadu	38.9	61.1	49.6	50.4	39.4	60.6	56.6	43.4
Uttar Pradesh	62.0	38.0	59.1	40.9	59.4	40.6	62.6	37.4
West Bengal	71.9	28.1	57.2	42.8	57.5	42.5	71.4	28.7
India	52.8	47.2	51.4	48.6	50.2	49.8	49.5	50.5

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12.

At the state level, during 1993-94, Punjab had highest proportion of male child labour (73%) engaged in agricultural allied sector while Rajasthan had highest incidence of girl child labour (64%). The trend in Rajasthan continued with 65% in 1993-94 to 72% in 2004-05. In 2011-12, Madhya Pradesh occupied highest proportion of female child labour with 64% (Table 3.8 (a)). Bihar reported the highest proportion of male child labour with 74% in 1999-00, Assam captured the highest proportion of male child labour with 74% in 2004-05. In Karnataka children engaged in agricultural and allied sector were male child only and their proportion was 100% in 2011-12.

Table 3.8 (b) Gender-wise proportion of child labour (under 5-14 age group) employed in industrial sector, 1993-94 to 2011-12

(Per Cent)

	1993-94		1999-00		2004-05		2011-12	
States	Male	Female	Male	Female	Male	Female	Male	Female
Andhra Pradesh	41.6	58.4	52.4	47.6	54.0	46.0	10.9	89.1
Assam	69.9	30.1	17.8	82.2	64.5	35.5	37.7	62.3
Bihar	54.5	45.6	46.7	53.3	73.6	26.4	57.0	43.0
Gujarat	70.3	29.7	58.1	41.9	48.1	51.9	58.2	41.8
Haryana	100	0.0	99.6	0.4	76.7	23.3	100.0	0.0
Jammu and Kashmir	0.0	0.0	50.0	50.0	14.8	85.2	45.3	54.7
Karnataka	66.7	33.3	62.5	37.5	40.2	59.8	59.5	40.5
Madhya Pradesh	49.9	50.1	31.0	69.0	40.4	59.6	66.7	33.3
Maharashtra	43.0	57.0	67.8	32.2	68.9	31.1	55.7	44.3
Orissa	31.8	68.2	40.6	59.5	37.3	62.7	45.4	54.6
Punjab	87.0	13.0	62.3	37.7	59.7	40.3	49.9	50.1
Rajasthan	43.0	57.0	51.4	48.7	52.3	47.7	21.5	78.5
Tamil Nadu	39.2	60.8	53.0	47.0	48.9	51.1	81.6	18.4
Uttar Pradesh	64.4	35.6	47.8	52.2	57.2	42.8	53.1	46.9
West Bengal	47.0	53.0	36.3	63.7	48.7	51.3	59.7	40.3
India	49.1	50.9	47.3	52.7	52.2	47.8	66.3	33.7

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12.

In the industrial sector (Table 3.8 (b)), Haryana had the highest proportion of child labour engaged in Industrial sector were male only while Orissa had female girl child labour incidences with the highest level of 68% by 1993-94. Also during 1999-00, Haryana remained as male child labour dominating state in industrial sector with 99.6% but Assam emerged as the state where female child labour dominate the male with 82%. During 2004-05, Bihar becomes the highest male child labour incidence with 74% to total child labour population in Bihar in the industrial

sector. Jammu and Kashmir had the highest proportion of female girl child labour to total child labour population in Jammu and Kashmir was engaged in Industrial sector. During 2011-12, Haryana was the state having highest incidence of male child labour with 100% and Andhra Pradesh become the state having highest incidences of female child labour with 89% share to total child labour population.

Table 3.8 (C) Gender-wise proportion of child labour (under 5-14 age group) employed in service sector, 1993-94 to 2011-12.

(Per Cent)

	1993-94		1999-00		2004-05		2011-12	
States	Male	Female	Male	Female	Male	Female	Male	Female
Andhra Pradesh	55.9	44.1	64.3	35.7	55.6	44.4	82.9	17.1
Assam	63.0	37.0	55.7	44.3	83.8	16.2	81.7	18.4
Bihar	86.0	14.0	78.0	22.0	73.5	26.5	70.4	29.7
Gujarat	72.5	27.5	83.8	16.2	85.1	14.9	68.8	31.3
Haryana	70.5	29.5	100	0.0	52.8	47.2	100.0	0.0
Jammu and Kashmir	100	0.0	75.7	24.4	0.0	100.0	96.6	3.4
Karnataka	74.9	25.1	90.0	10.0	49.3	50.7	100.0	0.0
Madhya Pradesh	71.9	28.1	74.9	25.2	73.2	26.8	61.0	39.0
Maharashtra	75.7	24.3	73.0	27.0	86.1	13.9	100.0	0.0
Orissa	61.7	38.3	46.6	53.4	67.5	32.5	98.5	1.5
Punjab	82.8	17.2	54.4	45.6	98.4	1.6	17.7	82.4
Rajasthan	62.7	37.3	80.7	19.3	81.8	18.2	71.5	28.5
Tamil Nadu	77.7	22.3	83.8	16.2	33.4	66.6	100.0	0.0
Uttar Pradesh	88.7	11.3	93.6	6.4	68.1	31.9	90.0	10.0
West Bengal	62.8	37.2	37.1	62.9	59.8	40.2	67.4	32.6
India	71.7	28.3	73.2	26.8	67.6	33.4	83.4	16.6

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12.

In service sector, every state reported higher incidences of male child labour with more than 60%. Again, the same trend was followed by 1999-00 that is state was having higher incidences of male child labour except Orissa (53%) and west Bengal (63%) where the female child participation rate in labour work was higher than male child and Haryana was the state where highest incidence of male child labour with 100%. During 2004-05, Punjab had the highest population of male child labour with 98% while Jammu and Kashmir showed child labour (100%) engaged in service sector and all of them were female child labour only. Also, by 2011-12, Haryana, Karnataka, Maharashtra, and Tamil Nadu had highest incidence of male child

labour with 100% each, Punjab showed highest share of female child labour state 82% (Table 3.8 (c)).

3.3.2 Participation of child labourers in economic activities by sector

In rural areas of India, at national level, child labourers were highly engaged in agriculture and allied activities and their proportion reduced from 1993-94 to 2011-12. During 1993-94 the percentages of child labour in rural India engaged in agriculture and allied economic activity was 84% was declined during 1999-00 to 81%, it again declined during 2004-05 to 77.5%. During 2011-12, it further declined to 70.4% (see Table 3.9 (a) in appendix).

At state level, during 1993-94, Jammu and Kashmir found highest proportion of child labour engaged in agriculture and allied Sector with 99.6%, Tamil Nadu was the state where highest proportion of child labour was engaged in Industrial sector with 31% share, and Assam occupied highest incidences of child labour engaged in service sector with 20.6%. During 1999-00, Rajasthan captured highest proportion of child labour engaged in Agriculture and Allied sector with 94% share, West Bengal occupied the highest proportion of child labour engaged in Industrial sector with 49.4%, and Assam captured highest proportion of child labour engaged in service sector with 35%. During 2004-05, Madhya Pradesh found highest proportion of child labour engaged in agriculture and allied sector with 90.5% and Punjab recorded the highest proportion of child labour engaged in industrial sector with 26.4% and Haryana recorded the highest proportion of child labour engaged in service sector with 19.5%. During 2011-12, Karnataka showed entire child labour population into the agriculture and allied sector with 98%, and Tamil Nadu captured highest proportion of child labour engaged in industrial sector with 62% and Maharashtra captured highest proportion of child labour engaged in service sector with 18% (see Table 3.9 (a) in appendix).

Table 3.9 (b) in Appendix shows the percentages of child labour engaged in economic activities in the Urban areas of India. In urban India at national level, during 1993-94 to 1999-00 service sector was the preferred activity of the child labourers and the proportion of child labourers engaged in this activity increased in this period from 44% to 52%. Industrial economic activity was the second preferred choice of child labour in which second highest proportion of child labour were engaged and their proportion was also increased during this period but the increased

proportion was too low (from 37.2% in 1993-94 to 27.7% in 1999-00). And, during 1993-94, very low proportion of child labour were engaged within the agriculture and allied sector and their proportion decline from 19% in 1993-94 to 11% in 1999-00. After this the major changes has been occurred in the proportion of child labour engaged in different economic activities. During 2004-05 to 2011-12, highest proportion of child labour was found in industrial sector and their proportion was increased during this period of time from 46% in 2004-05 to 60% in 2011-12. The proportion of child labour engaged in industrial and agriculture and allied sector declined during 2004-05 to 2011-12.

At the state level, during 1993-94 Jammu and Kashmir had the highest proportion of child labour engaged in agriculture and allied sector with 47% share, Tamil Nadu captured the highest proportion of child labour engaged in industrial sector with 61% share, and Assam captured the highest proportion of child labour engaged in Service sector with 93%. During 1999-00, again Jammu and Kashmir reported the highest proportion of child labour engaged in agriculture and allied sector with 48% share, Orissa captured the highest proportion of child labour engaged in Industrial sector with 49% share, and Assam captured the highest proportion of child labour engaged in service sector with 98% share. During 2004-05, Orissa captured the highest proportion of child labour engaged in agriculture and allied sector with 41.6%, Jammu and Kashmir captured the highest proportion of child labour engaged in Industrial sector with 99%, and Assam captured the highest proportion of child labour engaged in service sector with 93%. During 2011-12, Gujarat captured the highest proportion of child labour engaged in agriculture and allied sector with 33% share. Punjab captured the highest proportion of child labour engaged in Industrial sector with 88% share, and Assam was become the state where entire child labour population was engaged in service sector with 100% share (see Table 3.9 (b) in appendix).

Analysis of the data shows that,

- Highest proportion of child labourers was employed in agriculture and allied sector, followed by industrial sector and service sector during 1993-94 to 2011-12.
- The proportion of child labourers employed in agriculture and allied sector reduced during 1993-94 to 2011-12 but their proportions remain highest compared to the other sectors.

- The proportion of child labourers employed in Industrial sector was increased during 1993-94 to 2011-12 and the proportion of child labourers employed in service sector was also increased during 1993-94 to 2004-05 but declined in 2011-12.

- Male child labourers employed in agriculture and allied Sector dominated the female child labourers during 1993-94 to 2004-05 but during 2011-12, female child labourers dominated the male child labourers.

- Female child labourers employed in industrial sector dominated the male child labourers during 1993-94 to 1999-00 and reverse true for 2004-05 to 2011-12.

- Male child labourers employed in service sector dominated the female child labourers during 1993-94 to 2011-12.

- In rural India, highest proportion of child labour employed in agriculture and allied sector and their proportion declined during 1993-94 to 2011-12. This is true at National as well as state level.

- In urban India, highest proportion of child labour was employed in Industrial sector during 1993-94 to 2011-12 but during 2004-05 to 2011-12, highest proportion of child labour was employed in service sector. This is true ate state level and variation found at state level.

3.4 Linkages of child labourers with Education status

The main objective behind this analysis is to know the linkages between education and child labour. At all India level in Table 3.10, proportion of illiterate child labour was highest than the literate child labour during1993-94 to 2011-12 and their share declined in 1999-00 and further increased during 2004-05 to 2011-12.

Across the states, Rajasthan had illiterate child labour was higher with a higher share 91% and Tamil Nadu was the state captured highest illiterate child labour proportion to total child labour population with 32% by 1993-94.

Table 3.10 percentage of literate and illiterate child labour to total child labour (under 5-14 age group) population in Indian Major States (1993-94 to 2011-12)

(Per Cent)

	1993-94		1999-00		2004-05		2011-12	
States	illiterate	literate	illiterate	literate	illiterate	literate	illiterate	literate
Andhra Pradesh	84.7	15.3	59.6	40.4	59.7	40.3	82.1	18.0
Assam	69.2	30.8	46.0	54.0	53.4	46.6	56.6	43.4
Bihar	89.1	10.9	65.5	34.5	84.5	15.6	67.9	32.1
Gujarat	69.3	30.7	50.3	49.8	54.4	45.6	64.4	35.7
Haryana	78.6	21.4	44.0	56.0	57.1	42.9	51.9	48.1
Jammu and Kashmir	69.3	30.7	82.1	17.9	68.8	31.2	50.9	49.1
Karnataka	78.3	21.7	56.3	43.7	63.6	36.4	68.2	31.8
Madhya Pradesh	86.8	13.2	57.5	42.5	68.4	31.6	58.5	41.5
Maharashtra	70.1	29.9	49.4	50.6	41.2	58.8	48.7	51.3
Orissa	89.8	10.2	67.4	32.6	78.7	21.3	69.6	30.5
Punjab	76.1	23.9	36.0	64.0	58.4	41.6	59.5	40.5
Rajasthan	90.8	9.2	74.2	25.8	78.5	21.5	77.7	22.4
Tamil Nadu	68.0	32.0	19.0	81.0	34.7	65.4	37.9	62.1
Uttar Pradesh	82.3	17.7	54.6	45.5	65.2	34.8	58.2	41.8
West Bengal	85.1	14.9	38.1	61.9	63.2	36.8	72.2	27.8
India	81.1	18.9	54.8	45.2	64.3	35.7	64.5	35.5

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12.

Although during 1999-00, Rajasthan recorded the highest incidence of illiterate child labour with 74% while Tamil Nadu become the state having highest proportion of illiterate child labour with 81%.Also, during 2004-05, Rajasthan had the highest incidences of illiterate child labour with

78.5% in total child labour . In Bihar its incidence of illiterate child labour was high at 84.5%. During 2011-12, Andhra Pradesh had highest incidence of illiterate child labour to total child labour population in that state with 82% share and Tamil Nadu consisted of the highest incidence of literate child labour with 62%. Table 3.10 concludes that incidences of illiterate child labourer were higher than the literate and this is true at national level as well as state level except Assam in 1999-00, Maharashtra in 2004-05 and 2011-12.

3.4.1 Linkages of child labourers among educational levels by gender

The main purpose behind this analysis is to understand the gender-wise proportion of literate child labourers across states of India. At national level, proportion of literate male child labourers dominated the female child labourers during 1993-94 to 2011-12. The proportion literate male child labourers declined from 65% in 1993-94 to 58% in 1999-00 and 57.4% in 2004-05 while proportion of literate male child labourers increased to 62% in 2011-12 (Table 3.11).

Table 3.11 Gender-wise Percentages of literate child labourers to total child labour population (under 5-14 age group) in Indian Major States,1993-94 to 2011-12.

(Per Cent)

	1993-94		1999-00		2004-05		2011-12	
States	Male	Female	Male	Female	Male	Female	Male	Female
Andhra Pradesh	53.8	46.2	55.3	44.7	56.5	43.5	34.0	66.0
Assam	79.1	20.9	68.9	31.1	71.3	28.8	21.4	78.6
Bihar	93.3	6.7	80.0	20.0	75.5	24.5	60.6	39.4
Gujarat	63.2	36.8	61.3	38.7	68.1	31.9	72.8	27.2
Haryana	44.9	55.1	80.1	19.9	37.6	62.4	100	0.0
Jammu and Kashmir	74.6	25.4	57.8	42.2	56.9	43.1	50.4	49.6
Karnataka	61.4	38.6	57.4	42.6	61.4	38.6	90.3	9.7
Madhya Pradesh	70.8	29.2	59.4	40.6	47.1	52.9	82.5	17.5
Maharashtra	56.8	43.2	51.6	48.4	51.6	48.4	77.8	22.3
Orissa	82.1	17.9	43.7	56.4	63.6	36.4	44.4	55.6
Punjab	78.2	21.8	55.4	44.6	66.6	33.5	78.8	21.2
Rajasthan	79.3	20.7	57.3	42.7	49.7	50.3	26.4	73.6
Tamil Nadu	54.1	45.9	58.6	41.4	40.6	59.5	52.1	47.9
Uttar Pradesh	82.5	17.5	69.4	30.6	64.5	35.5	64.4	35.6
West Bengal	75.3	24.7	42.9	57.1	53.9	46.1	44.0	56.0
India	65.0	35.0	58.0	42.0	57.4	42.6	61.5	38.5

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12.

At state level, during 1993-94 Bihar captured the highest incidence of literate male child labourers with 93% while Haryana captured highest incidence of literate female child labourers with 55%. During 1999-00, Haryana had the highest incidence of literate male child labourers with 80% while West Bengal having highest incidence of literate female child labourers with 57%. During 2004-05, Bihar reported the highest incidence of literate male child labourers with 75.5% while Haryana having highest incidence of literate female child labourers with 62.4% share. During 2011-12, Haryana showed the 100% literate male child labourers while Assam captured 100% of literate female child labourers. Table 3.11 reported that literate male child labur were highly involved in the workforce than the literate female during 1993-94 to 2011-12.

3.4.1 Educational status of child labourers

The main objective behind this analysis is to know the educational levels of child labourers in India. Table 3.12 (a) showed that highest proportion of child labour were illiterate followed by primary, middle and secondary educational level during 1993-94. This is true at all India level as well as state level. Rajasthan registered highest proportion of illiterate children (90.8%) involved in work force among the states while Tamil Nadu reported lowest incidences of illiterate child labour (68%). Jammu and Kashmir showed highest proportion of literate children (27.5%) upto primary level engaged in work force, and Gujarat registered highest proportion of literate children (2.6%) upto secondary level involved in work force.

Table 3.12 (a) Educational levels of literate child labourers (under 5-14 age group) across major states 1993-94.

(Per Cent)

	Illiterate	Primary	Middle	Secondary	Total
States	% of literate child labour				
Andhra Pradesh	84.7	12.5	2.6	0.2	100
Assam	69.2	20.1	10.4	0.3	100
Bihar	89.1	7.2	3.7	0.0	100
Gujarat	69.3	23.2	4.9	2.6	100
Haryana	78.6	20.0	1.4	0.0	100
Jammu and Kashmir	69.3	27.5	3.2	0.0	100
Karnataka	78.3	16.0	4.8	0.9	100
Madhya Pradesh	86.8	10.6	2.3	0.3	100
Maharashtra	70.1	18.8	10.4	0.8	100
Orissa	89.8	7.9	2.3	0.0	100
Punjab	76.1	17.1	5.7	1.2	100
Rajasthan	90.8	8.6	0.6	0.0	100
Tamil Nadu	68.0	26.2	5.6	0.2	100
Uttar Pradesh	82.3	12.1	5.3	0.3	100
West Bengal	85.1	13.8	1.1	0.0	100
India	81.1	14.5	4.0	0.4	100

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94.

Table 3.12 (b) for the year 1999-00 also showed the same trend of educational level as 1993-94. This is true at all India level as well as state level. Jammu and Kashmir registered highest proportion of illiterate children (82%) involved in work force among the states while again Tamil Nadu reported lowest incidences of illiterate child labour (19%). Also, Tamil Nadu showed

highest proportion of literate children (68%) upto primary level engaged in work force, and Orissa registered highest proportion of literate children (0.4%) upto higher secondary level and above education level involved in work force. Andhra Pradesh and Orissa were the only states where child labour were literate upto higher secondary and above education level.

Table 3.12 (b) Educational levels of literate child labourers (under 5-14 age group) across major states 1999-00.

(Per Cent)

	illiterate	Primary	Middle	Secondary	Higher Secondary & above	Total
States	% of literate child labour					
Andhra Pradesh	59.6	33.7	6.6	0.1	0.11	100
Assam	46.0	41.9	12.1	0.0	0	100
Bihar	65.5	29.8	3.4	1.2	0	100
Gujarat	50.3	38.7	10.8	0.2	0	100
Haryana	44.0	45.0	11.0	0.0	0	100
Jammu and Kashmir	82.1	15.5	2.5	0.0	0	100
Karnataka	56.3	35.4	8.1	0.3	0	100
Madhya Pradesh	57.5	39.7	2.8	0.0	0	100
Maharashtra	49.4	37.9	12.6	0.1	0	100
Orissa	67.4	27.3	4.8	0.0	0.4	100
Punjab	36.0	58.3	4.3	1.4	0	100
Rajasthan	74.2	24.8	0.9	0.1	0	100
Tamil Nadu	19.0	69.8	10.8	0.5	0	100
Uttar Pradesh	54.6	39.7	5.7	0.1	0	100
West Bengal	38.1	61.2	0.7	0.0	0	100
India	54.8	39.1	5.9	0.2	0.04	100

Source: Calculated by unit level NSS data - employment and unemployment survey, 1999-00

Table 3.12 (c), shows that highest proportion of child labour were illiterate followed by primary, middle and secondary educational level during 1993-94. This is true at all India level as well as state level. Bihar registered highest proportion of illiterate children (84.5%) involved in work force among the states and Tamil Nadu reported lowest incidences of illiterate child labour (34.7%). Tamil Nadu reported highest proportion of literate children (51%) upto primary level engaged in work force, and West Bengal registered highest proportion of literate children (0.8%) upto higher secondary and above education level involved in work force.

Table 3.12 (c) Educational levels of literate child labourers (under 5-14 age group) across major states 2004-05.

(Per Cent)

2004-05	Illiterate	Primary	Middle	Secondary	Higher Secondary & above	Total
States	% of literate child labour					
Andhra Pradesh	59.7	26.3	12.8	1.2	0.0	100
Assam	53.4	33.3	13.4	0.0	0	100
Bihar	84.5	13.5	2.1	0.0	0	100
Gujarat	54.4	18.9	26.7	0.0	0	100
Haryana	57.1	34.7	7.8	0.4	0	100
Jammu and Kashmir	68.8	25.8	5.2	0.0	0.1	100
Karnataka	63.6	18.2	18.1	0.0	0	100
Madhya Pradesh	68.4	27.3	4.3	0.0	0.1	100
Maharashtra	41.2	31.8	27.0	0.0	0	100
Orissa	78.7	11.7	9.6	0.0	0	100
Punjab	58.4	35.3	6.3	0.0	0	100
Rajasthan	78.5	17.5	3.6	0.0	0.4	100
Tamil Nadu	34.7	51.1	14.2	0.0	0	100
Uttar Pradesh	65.2	28.8	5.7	0.1	0.2	100
West Bengal	63.2	33.5	2.4	0.0	0.8	100
India	64.3	26.0	9.5	0.1	0.1	100

Source: Calculated by unit level NSS data - employment and unemployment survey, 2004-05

Table 3.12 (d) for the year 2011-12 also showed the different trend of educational level as compared to 1993-94 to 2004-05. This table shows that at all India level share of literate child labour up to primary level was higher than the illiterate child labour and this is true at national level as well as state level. Andhra Pradesh registered highest proportion of illiterate children (82%) involved in work force among the states while again Tamil Nadu reported lowest incidences of illiterate child labour (37.9%). Maharashtra showed highest proportion of literate children (42%) upto primary level engaged in work force, and Jammu and Kashmir reported highest proportion of literate children (0.4%) upto higher secondary level and above education level involved in work force.

Table 3.12 (d) Educational levels of child labourers across major states 2011-12.

(Per Cent)

	illiterate	Primary	Middle	Secondary	Total
States	% of literate child labour				
Andhra Pradesh	82.0	2.9	15.1	0.0	100
Assam	56.6	11.4	32.0	0.0	100
Bihar	67.9	22.3	9.7	0.1	100
Gujarat	64.4	15.6	19.6	0.4	100
Haryana	51.9	0.0	48.1	0.0	100
Jammu and Kashmir	50.9	38.5	8.3	2.3	100
Karnataka	68.2	7.1	24.7	0.0	100
Madhya Pradesh	58.5	38.6	3.0	0.0	100
Maharashtra	48.7	41.9	9.4	0.0	100
Orissa	69.6	7.5	23.0	0.0	100
Punjab	59.5	27.2	13.3	0.0	100
Rajasthan	77.7	19.9	2.4	0.0	100
Tamil Nadu	37.9	26.1	36.0	0.0	100
Uttar Pradesh	58.2	31.9	9.8	0.0	100
West Bengal	72.2	23.0	4.8	0.0	100
India	36.4	52.8	10.8	0.05	100

Source: Calculated by unit level NSS data - employment and unemployment survey, 2011-12.

Analysis of Table 3.12 (a) to (d) represented that incidences of child labourers literate up to primary educational level were highest as compared to other educational levels during 1993-94 to 2011-12. This is true at all India as well as state level. And, the proportion of illiterate child labourers has decreased during 1993-94 to 2011-12 except 2004-05 at all India level and variation can be found at state level.

It can be understood from the above analysis that,

- Percentage of illiterate children employed in economic activities was higher than literate child labourers during 1993-94 to 2011-12.
- Literate male child labourers dominated the female child labourers during 1993-94 to 2011-12.
- Incidences of literate children up to primary education level were higher in the work force as compared to other educational levels during 1993-94 to 2011-12.
- Proportion of illiterate child labour has decreased during 1993-94 to 2011-12 except 2004-05 at all India level and variation can be found across states.

3.5 Summing up

Incidence of child labour has reduced from 6.5% to 1.5% during 1993-94 to 2011-12.Andhra Pradesh recorded the highest distribution of child labour during 1993-94 to 1999-00 while Uttar Pradesh showed the highest distribution of child labour during 2004-05 to 2011-12.Male child labourers occupied highest incidence of child labour in India than female and this is true only at national level while variation found at the state level. Highest incidence of child labour found among SCs followed by OBCs and „Others" social group during 1999-00 while during 2004-05 to 2011-12, OBCs accounted for slightly higher incidence of child labour followed by SCs and „Others" social group. This is true only at national level while variation can be found at the state level. Rural areas of India witnessed higher proportion of child labour but their proportion of child labour in rural India has declined during 1993-94 to 2011-12.Proportion of child labour in urban India was very much lower than the share in rural India but the proportion has increased from 1993-94 to 2011-12 in urban India.

Child labour and economic activities: highest proportion of child labourers was employed in agriculture and allied sector, followed by industrial sector and service sector during 1993-94 to 2011-12. The proportion of child labourers employed in agriculture and allied sector was reduced during 1993-94 to 2011-12 but their proportion remained highest among the other sectors. The proportion of child labourers employed in industrial sector was increased during 1993-94 to

2011-12 and the proportion of child labourers employed in service sector also increased from 1993-94 to 2004-05 but declined in 2011-12.

Child labour and gender-wise participation in economic activities: at all India level, male child labourers employed in agriculture and allied sector dominate the female child labourers during 1993-94 to 2004-05 while during 2011-12 female child labourers dominates the male child labourers. Female child labourers employed in Industrial Sector were dominated the male child labourers during 1993-94 to 1999-00 and reverse was true for 2004-05 to 2011-12. And, male child labourers employed in service sector were dominated the female child labourers during 1993-94 to 2011-12.

Child labour and sector-wise participation in economic activities: in rural India, highest proportion of child labour was employed in agriculture and allied sector across major states and their proportion has declined during 1993-94 to 2011-12. This is true at national as well as state level. And, in urban India, highest proportion of child labour was employed in industrial sector during 1993-94 to 2011-12 but during 2004-05 to 2011-12, highest proportion of child labour was employed in service sector. This is true national level and variation found at state level.

Child labour and educational status: at national level, the percentages of illiterate children employed in economic activities were higher than literate children during 1993-94 to 2011-12. Literate male child labourers dominated the female child labourers during 1993-94 to 2011-12. Incidences of literate children up to primary education level were higher in labour work as compared to other educational levels during 1993-94 to 2011-12. This is true at all India as well as state level. And, the proportion of literate child labour among educational level has increased during 1993-94 to 2011-12 except 2004-05 and this was true at all India level and variation can be found at state level.

Chapter IV

DETERMINANTS OF CHILD LABOUR IN INDIA

4.1 Introduction

In the present chapter, an attempt has been made to examine the economic background of the head of the households of child labour in terms of size of landholding and the type of work pursued as well as the educational status and poverty ratio, and to analyse the determinants that are responsible for children to engage in labour work. The above examination attempted to determine the link between child labour and economic background of head of the household (i.e. farm size and the nature of work that the household is engaged in types of economic activities). Land ownership by a household is a very good indicator of the economic strength of the household. Households that have land as an asset would in turn have higher income level as compared to households with no land and capital. Incidence of child labour would be lower in the former type of household than the latter. Kanbargi and Kulkarni (1991) and Skoufias (1994) found that in households owning less than 10 acres of land, there was a greater need for productive work by children than in households owning large landholdings. Further, wage labour activities are associated with irregular income.

Children whose fathers are self employed are the least exposed to income shocks, while daily wage labour yields very uncertain earnings. Participation of child labour as daily wage work is generally higher from agricultural labour households. This statement is supported by the evidence found in studies of Jayraj (1995), Skoufias (1994), Leclereq (2001), Dev and Ravi (2001) which established positive linkages between proportion of agricultural labourers in total labour and incidence of child labour. Hence, it becomes imperative to understand and examine the economic, social and educational background of the households that these working children belong to.

Importantly, this chapter is also devoted to examine the economic background of the head of the households of child labourers (under 5-14 age group) and to examine about the determinants that are responsible for children to employed in labour work. Thus, the main objective of this chapter

is to examine the strength of relationships between child labour and the following characteristics of their head of the households:

1. Economic position of the households, including size of landholdings and the nature of work that the household is engaged in.

2. Educational background of the head of the household of child labour (5-14 age group), and

3. Poverty Ratio of the head of the household of child labour (5-14 age group).

In India incidences of child labour in 1993-94 was 6.5 %, 4.4% in 1999-00, 3.4% in 2004-05, and 1.5% in 2011-12. Agriculture and allied activities were the source of income of more than half of population of child labourers and this is true for 1993-94 to 2004-05, and this proportion slightly declined by 2011-12.

This chapter has been organised as follows. Section I describes examine the economic features of the head of the household of child labour in terms of land ownership and type of work pursued, educational status, and the poverty level of the head of the household of child labour. Section II presented the analysis of the determinants that are responsible for children to employ in labour work.

4.2 characteristics of head of the households of child labourers

The main objective of this analysis is to know the gender differences among the child labourers head of the households. Table 4.1 shows the gender-wise description of head of the household of child labourers. In India, at all India level, 91% of head of the household of child labour in India were male against 9% for female head of the household by 1993-94 and this trend continued till 2011-12. The proportion of male head of the household of child labour slightly came down from 91% in 1993-94 to 90.6% in 1999-00, 90% in 2004-05, and 83% in 2011-12 against rise in proportion of female head of the household from 9% in 1993-94, 9.4% in 1999-00, 10% in 2004-05 and 17% in 2011-12.

Table 4.1 Gender-wise proportion of head of the households of child labourers (under 5-14 age group) in India, 1993-94 to 2011-12

(Per cent)

	1993-94		1999-00		2004-05		2011-12	
States	Male	Female	Male	Female	Male	Female	Male	Female
Andhra Pradesh	90.4	9.7	90.2	9.8	87.6	12.5	93.1	6.9
Assam	90.2	9.8	87.1	12.9	95.4	4.6	84.2	15.8
Bihar	94.2	5.9	91.8	8.2	91.6	8.4	93.5	6.5
Gujarat	95.1	4.9	95.8	4.2	88.8	11.2	91.6	8.4
Haryana	83.3	16.7	100	0.0	92.6	7.4	100.0	0.0
Jammu and Kashmir	95.2	4.8	98.5	1.5	92.3	7.7	98.7	1.3
Karnataka	91.8	8.2	86.9	13.1	87.4	12.6	57.5	42.5
Madhya Pradesh	94.1	6.0	94.2	5.8	92.7	7.3	86.7	13.3
Maharashtra	89.8	10.2	87.8	12.2	92.4	7.6	58.2	41.8
Orissa	92.9	7.1	93.6	6.5	87.7	12.3	71.7	28.3
Punjab	96.0	4.0	85.3	14.7	89.9	10.2	88.2	11.8
Rajasthan	94.3	5.7	94.1	5.9	93.0	7.0	71.8	28.2
Tamil Nadu	88.8	11.2	84.2	15.8	90.1	9.9	96.4	3.6
Uttar Pradesh	90.6	9.4	92.3	7.7	86.9	13.1	80.8	19.2
West Bengal	87.0	13.0	87.9	12.1	93.0	7.0	89.8	10.2
India	91.0	9.0	90.6	9.4	89.8	10.2	82.6	17.4

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12.

At state level, Punjab had the highest proportion of male head of the household of child labour with 96% found in India while Haryana was the state with highest proportion of female head of the household of child labour found with 16.7% in India by 1993-94, while situation changed by

1999-00 where Haryana accounted for the highest proportion of male head of the household of child labour with 100% and Tamil Nadu got the first place in female head of the household case with 16%. Also, during 2004-05, trend changed for male head of the household as Assam got the first place with highest proportion of male head of the household of child labour with 95%. This trend changed for female head of the household as Uttar Pradesh again got first place in consisting highest proportion of female head of the household of child labour (13%). During 2011-12, Haryana had the first place in having highest proportion of male head of the household of child labour with 100% while Karnataka got first place in consisting highest proportion of female head of the household of child labour with 42.5% (Table 4.1).

4.2.1 ***Size of landholdings***

In order to facilitate the understanding of the land ownership pattern within each of the major state. The land holding categories are as under:

Landholding Categories	Land owned (ha)
Landless	No Land
Marginal	0.001-1.0
Small	1.001-2.0
Semi-medium	2.001-4.0
Medium	4.001-10.0
Large	10.01 and above

Source: NSS- land and livestock holding Survey-2013

In India, at national level, the highest incidence of child labour (53%) was observed in the households that have marginal landholdings (less than one hectare), followed by those with small landholding size (1.001 to 2.0 hectare) with 21% by 1993-94. The proportion of the head of the households that have marginal landholdings increased further 63% in 1999-00, 74% in 2004-05, and 83% in 2011-12 (Table 4.2 (a)).

Table 4.2 (a) category-wise landholdings of child labourer‟s head of the households in India (1993-94).

(Per cent)

States	Landless	Marginal	Small	Semi-Medium	Medium	Large	Total
Andhra Pradesh	5.7	55.7	26.1	8.6	3.2	0.8	100
Assam	4.1	57.1	33.4	5.5	0.0	0.0	100
Bihar	3.9	71.8	20.7	2.5	1.0	0.2	100
Gujarat	5.3	41.0	20.4	14.7	17.5	1.1	100
Haryana	40.1	27.8	15.6	12.8	2.1	1.7	100
Jammu and Kashmir	3.6	55.1	35.2	6.1	0.0	0.0	100
Karnataka	6.5	44.7	20.9	16.7	9.6	1.7	100
Madhya Pradesh	7.1	26.7	28.1	26.1	11.2	0.9	100
Maharashtra	4.2	38.6	26.6	14.9	14.8	0.9	100
Orissa	8.2	52.7	26.3	8.6	4.0	0.3	100
Punjab	52.6	21.8	8.2	6.8	8.6	2.0	100
Rajasthan	0.5	38.8	21.0	21.0	14.0	4.8	100
Tamil Nadu	5.6	67.5	22.9	2.6	1.3	0.1	100
Uttar Pradesh	5.3	71.9	14.3	6.4	2.2	0.0	100
West Bengal	13.0	77.7	5.3	3.9	0.2	0.0	100
India	6.0	53.0	21.0	12.4	6.7	1.2	100

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94.

At the state level, West Bengal recorded the highest incidence of child labour in marginal landholding categories (78%) while Jammu and Kashmir, on the other hand, has the highest incidence of child labour in the small landholding size (35%) class during 1993-94 (Table 4.2 (a)).

Table 4.2 (b) category-wise landholdings of child labourer‟s head of the households in India (1999-00)

(Per cent)

States	Landless	Marginal	Small	Semi-Medium	Medium	Large	Total
Andhra Pradesh	9.8	64.3	15.8	8.1	1.8	0.2	100
Assam	18.4	62.1	13.0	5.7	0.8	0.1	100
Bihar	9.0	83.3	4.9	2.2	0.7	0.0	100
Gujarat	9.5	61.0	13.7	8.5	6.9	0.4	100
Haryana	1.0	87.8	8.1	2.9	0.2	0.0	100
Jammu and Kashmir	1.3	76.2	0.5	22.0	0.0	0.0	100
Karnataka	6.3	59.5	12.1	14.7	6.9	0.6	100
Madhya Pradesh	10.0	43.5	18.6	20.1	6.1	1.7	100
Maharashtra	24.3	39.0	15.1	15.7	4.7	1.2	100
Orissa	4.2	77.3	12.4	3.0	2.9	0.2	100
Punjab	20.9	70.2	4.7	3.8	0.3	0.1	100
Rajasthan	4.0	47.7	17.2	12.5	13.2	5.4	100
Tamil Nadu	27.1	67.5	3.5	1.5	0.5	0.0	100
Uttar Pradesh	11.6	73.1	10.6	3.5	1.2	0.0	100
West Bengal	16.1	77.3	5.2	1.5	0.0	0.0	100
India	11.4	62.6	12.5	8.6	3.9	0.9	100

Sources: Calculated by unit level data of NSS – Employment and Unemployment survey, 1999-00.

Haryana showed the highest incidence of child labour in the marginal landholding size class (88%) while Rajasthan had the highest incidence of child labour in the small landholding size class with 17.2% share during 1999-00 (Table 4.2 (b)).

In Table 4.2(c), Tamil Nadu registered the highest incidence of child labourer among the head of the households (93%) occupied marginal landholding while Maharashtra accounted the highest incidence of child labour child labourer among the head of the households (22%) occupied small size of landholding during 2004-05 (Table 4.2 (c)).

Table 4.2 (c) category-wise landholdings of child labourer‟s head of the households in India (2004-05)

(Per cent)

States	Landless	Marginal	Small	Semi-Medium	Medium	Large	Total
Andhra Pradesh	2.6	76.0	14.7	4.0	2.7	0.0	100
Assam	1.8	68.9	16.0	11.5	1.8	0.0	100
Bihar	0.1	86.9	12.0	0.7	0.3	0.0	100
Gujarat	1.4	73.6	3.8	14.5	6.8	0.0	100
Haryana	2.1	57.9	17.8	10.1	11.2	0.9	100
Jammu and Kashmir	0.0	87.6	10.3	2.1	0.0	0.0	100
Karnataka	3.0	71.7	13.5	9.1	1.6	1.2	100
Madhya Pradesh	1.4	52.0	19.6	17.3	9.1	0.6	100
Maharashtra	0.6	51.0	21.9	18.2	8.2	0.1	100
Orissa	1.1	81.2	14.6	1.5	1.6	0.0	100
Punjab	0.2	91.0	3.8	4.2	0.8	0.0	100
Rajasthan	1.8	48.8	16.3	17.7	12.5	3.0	100
Tamil Nadu	0.0	92.6	7.5	0.0	0.0	0.0	100
Uttar Pradesh	0.3	87.9	9.1	2.3	0.5	0.0	100
West Bengal	4.0	90.9	4.6	0.5	0.0	0.0	100
India	1.3	73.9	12.8	7.7	3.9	0.5	100

Source: Calculated by unit level NSS data - employment and unemployment survey, 2004-05

In Table 4.2 (d), Haryana and Tamil Nadu had the highest incidence of child labour among the head of the households (100%) occupied marginal landholding while Madhya Pradesh had the lowest incidence of child labour among the head of the households (45%) occupied marginal landholding. On the other hand, Madhya Pradesh has the highest incidence of child labour among the head of the households (32%) occupied in the small landholding size class during 2011-12 (Table 4.2 (d)).

Table 4.2 (d) category-wise landholdings of child labourer‟s head of the households in India (2011-12)

(Per cent)

States	Landless	Marginal	Small	Semi-Medium	Medium	Large	Total
Andhra Pradesh	0.0	93.7	4.7	0.0	0.5	1.1	100
Assam	0.8	99.2	0.0	0.0	0.0	0.0	100
Bihar	0.0	68.1	22.4	8.2	1.3	0.0	100
Gujarat	0.0	70.8	12.2	4.8	10.5	1.9	100
Haryana	0.0	100.0	0.0	0.0	0.0	0.0	100
Jammu and Kashmir	0.0	93.6	4.3	0.0	2.1	0.0	100
Karnataka	0.0	67.3	2.5	23.1	7.2	0.0	100
Madhya Pradesh	0.0	44.7	31.9	21.2	2.1	0.1	100
Maharashtra	0.0	82.4	9.8	7.3	0.4	0.0	100
Orissa	0.0	84.1	14.0	1.9	0.0	0.0	100
Punjab	0.0	95.2	0.9	3.9	0.0	0.0	100
Rajasthan	0.0	55.5	24.6	18.0	1.9	0.0	100
Tamil Nadu	0.0	100.0	0.0	0.0	0.0	0.0	100
Uttar Pradesh	2.3	91.7	5.5	0.3	0.2	0.0	100
West Bengal	0.0	99.3	0.0	0.7	0.0	0.0	100
India	0.8	83.1	9.6	5.0	1.3	0.2	100

Source: Calculated by unit level NSS data - employment and unemployment survey, 2011-12

It is clear that the proportion of child labourers was highest among head of the households occupied marginal size of landholding as compared to larger farm size households. This result is

supported by the fact that 53% in 1993-94, 63% in 1999-00, 74% in 2004-05, and 83% in 2011-12 of the child labour in India belonged to the households with marginal size of landholding. This holds true at the state level as well for 1999-00 to 2011-12 (Table 4.2 (b) to (d)), except in Madhya Pradesh where 28% of the child labour came from medium landholding size category and Punjab where 53% of the child labour came from landless households in 1993-94 (Table 4.2 (a)).

With respect to **gender differences** as it is evident from Table 4.2 (a) to (d) that highest incidence of child labour was found among the marginal landholding category. This is true for national as well as state level. Therefore, in Table 4.3 we focused only on marginal landholding category. In table 4.3, at national level, male child labour was dominant during 1993-94 to 2011-12 but the proportion of male child labour under marginal landholding category decreased marginally (91.3% in 1993-94, 91.0% in 1999-00, 88.7% in 2004-05, 80.6% in 2011-12).

At state level, Assam registered the highest incidence of male child labour with 97% share while highest incidence of female child labour under marginal landholding category can be found in Haryana with 31% in 1993-94. Haryana occupied the highest incidence of male child labour under category with 100% share while highest incidence of female child labour under marginal landholding category found in Assam with 18% share during 1999-00. Assam showed highest incidence of male child labour under marginal landholding category with 96% while highest incidence of female child labour under category can be found in Karnataka with 16% by 2004-05. Haryana has highest incidence of male child labour under marginal landholding category with 100% while highest incidence of female child labour under category was found in Karnataka with 64% share by 2011-12 Hence, we found that Male child labour was dominant under marginal landholding category during 1993-94 to 2011-12 and this was true for national as well as state level (see Table 4.3 in Appendix).

4.2.2 Proportion of head of the households engaged in different economic activities

The type or nature of work which fetches the maximum proportion of income to the household determines by the economic activities. The main objective of this analysis is to know the proportion of the head of the households of child labourers employed in different economic activities across states. At the national level, proportion of child labourer‟s households employed

in agriculture and allied activities were highest with 72.4% in 1993-94, 70% in 1999-00, 65% in 2004-05, and 57% in 2011-12 followed by households engaged in industrial sector with 14.2% in 1993-94, 15% in 1999-00, 18% in 2004-05, and 27% in 2011-12 and service sector 13.5% in 1993-94 , 15% in 1999-00, 16% in 2004-05 and 16% in 2011-12. The proportion of child labourer‟s households employed in agriculture and allied activities continuously declined during 1993-94 to 2011-12. On the other hand, proportion of child labourer‟s households employed in industrial sector and service sector had increased continuously during 1993-94 to 2011-12 (see Table 4.4 in Appendix).

At the state level, Madhya Pradesh (90.5%), Tamil Nadu (23.5%), and Assam (34%) had the highest incidence of head of the household of the child labour engaged in agriculture and allied sector, industrial sector, and service sector respectively while Assam (5%), and Madhya Pradesh (4.3%) showed lowest incidence of the head of the household of the child labour engaged in agriculture and allied sector, industrial sector, and service sector respectively in 1993-94. Madhya Pradesh (87%), Jammu and Kashmir (40.7%) registered the highest incidence of head of the household of the child labour engaged in agriculture and allied sector, industrial sector, and service sector respectively during 1999-00. Madhya Pradesh (84%), Jammu and Kashmir (54%) consist highest incidence of head of the household of the child labour engaged in agriculture and allied sector, industrial sector, and service sector respectively. Even in Jammu Kashmir industrial sector and service sector was the priority of the head of the household of the child labour in 2004-05. West Bengal (60%), and Tamil Nadu (51%) consisted of highest incidence of head of the household of the child labour engaged in agriculture and allied sector, industrial sector, and service sector respectively even in the West Bengal industrial sector was the priority of the head of the household of the child labour during 2011-12. Hence, above analysis showed that the proportion of child labourer‟s households employed in agriculture and allied activities continuously declined during 1993-94 to 2011-12. On the other hand, proportion of child labourer‟s households employed in industrial sector and service sector had increased continuously during 1993-94 to 2011-12 (see Table 4.4 in Appendix).

4.2.3 Educational background of the head of the households of the child labourers

The main objective of this section is to examine the educational status of the head of the households of the child labourer. At national level, proportion of illiterate head of the household of the child labourer was highest with 68% while only 32% head of the household of the child labourers was literate in 1993-94. And, during 1999-00 to 2004-05, the illiterate proportion of head of the household of the child labourers was further increased to 69% in 1999-00 against 31% of literate and 79% in 2004-05 against 21% but this proportion declined during 2011-12 up to 67%. That means during the 2011-12, the proportion of the literate head of the household of the child labourers was increased to 24% but still it was lowest than the proportion of illiterate head of the households.

Table 4.5 Educational status of head of the households of child labour (under 5-14 age group) in India (1993-94 to 2011-12)

(Per cent)

	1993-94		1999-00		2004-05		2011-12	
States	Illiterate	Literate	Illiterate	Literate	Illiterate	Literate	Illiterate	Literate
Andhra Pradesh	78.6	21.4	80.5	19.5	84.7	15.3	95.1	4.9
Assam	45.1	54.9	39.1	60.9	78.9	21.1	45.5	54.5
Bihar	74.8	25.2	69.7	30.3	85.4	14.6	86.6	13.4
Gujarat	62.6	37.4	62.6	37.5	84.1	15.9	86.1	13.9
Haryana	75.1	24.9	64.4	35.6	76.8	23.2	40.1	59.9
Jammu and Kashmir	61.9	38.1	57.9	42.1	71.3	28.7	72.5	27.5
Karnataka	68.9	31.1	74.5	25.5	87.7	12.3	94.8	5.2
Madhya Pradesh	73.9	26.1	72.4	27.6	85.9	14.1	66.4	33.6
Maharashtra	58.2	41.9	61.8	38.2	66.2	33.8	78.9	21.1
Orissa	71.1	28.9	69.8	30.2	90.2	9.8	88.6	11.4
Punjab	70.8	29.2	56.9	43.1	76.8	23.2	80.2	19.8
Rajasthan	72.0	28.0	80.9	19.1	80.9	19.2	82.9	17.1
Tamil Nadu	55.4	44.6	61.4	38.6	75.8	24.2	85.5	14.5
Uttar Pradesh	66.6	33.4	59.6	40.4	73.4	26.6	74.1	25.9
West Bengal	60.1	39.9	60.0	40.0	73.9	26.1	55.6	44.4
India	68.2	31.8	69.0	31.0	78.6	21.4	76.1	23.9

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12.

At state level, Andhra Pradesh occupied highest proportion of illiterate head of the household of the child labour with 78.6 and Assam had the highest proportion of literate head of the household of the child labour with 55% by 1993-94. During 1999-00, Rajasthan consisted of highest

proportion of literate head of the household of the child labour with 81% and Punjab registered highest proportion of literate head of the household of the child labour with 43%.

During 2004-05, Orissa showed highest proportion of illiterate head of the household of the child labour with 90% and Maharashtra had highest proportion of literate head of the household of the child labour with 34%. During 2011-12, Andhra Pradesh showed highest proportion of illiterate head of the household of the child labour with 95% and Haryana showed highest proportion of literate head of the household of the child labour with 60%. However, we found that highest incidence of child labourers belonged to illiterate head of the households and this is true at national as well as state level (Table 4.7). This analysis also proved that lack of education is also one of the main reason behind the issue of child labour in India.

4.2.4 Poverty ratio of the head of the households of child labourers

This section examines incidences of child labour among poor[12] and non-poor[13] head of the households. Due to inconsistency in estimation of poor and non-poor households because of changes in methodology for estimation of poverty, 1993-94 round have not been included for the analysis in this section. This study used state specific line for the year 1993-94 and 1999-00 is based on Lakadwala Methodology while state specific line for 2004-05 and 2011-12 is based on Tendulkar Methodology.

In Table 4.6, at national level during 1999-00, proportion of poor head of the households of the child labourers declined to 57% against 43% of non-poor. During 2004-05, proportion of poor head of the household of the child labour increased to 77% against 23% non-poor. And, during 2011-12, proportion of poor head of the household of the child labourer further declined to 64% against 36% non-poor. Hence, there is variation in the trend of the proportion of poor head of the household of the child labour from 1993-94 to 2011-12.

[12] Head of the Household"s MPCE up to the poverty line as per planning commission reports for 1993-94, 1999-00, 2004-05, and 2011-12

[13] Head of the Household"s MPCE higher than poverty line as per planning commission reports for 1993-94, 1999-00, 2004-05, and 2011-12

Table 4.6 Incidences of child labour among poor and non-poor head of the households of child labour in India (1999-00 to 2011-12)

(Per cent)

	1999-00		2004-05		2011-12	
States	Non-Poor	Poor	Non-Poor	Poor	Non-Poor	Poor
Andhra Pradesh	54.5	45.5	52.8	47.3	77.6	22.4
Assam	42.0	58.0	50.8	49.2	53.2	46.8
Bihar	39.8	60.2	0.3	99.7	1.2	98.8
Gujarat	56.2	43.8	44.6	55.4	72.0	28.0
Haryana	49.4	50.7	52.9	47.1	72.3	27.7
Jammu and Kashmir*	62.7	37.3	64.4	35.6	57.6	42.4
Karnataka	43.6	56.4	39.4	60.6	56.8	43.2
Madhya Pradesh	28.8	71.2	2.1	97.9	3.4	96.6
Maharashtra	33.6	66.4	30.6	69.4	18.7	81.3
Orissa	19.5	80.5	11.8	88.3	44.8	55.2
Punjab	53.0	47.0	40.5	59.5	82.8	17.2
Rajasthan	52.1	47.9	45.8	54.2	62.7	37.3
Tamil Nadu	36.6	63.4	32.7	67.3	26.7	73.3
Uttar Pradesh	43.9	56.1	2.8	97.2	7.0	93.0
West Bengal	28.4	71.6	32.7	67.3	77.9	22.1
India	42.9	57.2	23.4	76.6	35.5	64.5

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12.

* Data of Jammu and Kashmir for the year 1993-94 is not available in the planning commission Report 1993-94, therefore, we considered India‟s Poverty line as Jammu and Kashmir‟s poverty line for the same year.

At state level, during 1999-00, Orissa had the highest proportion of poor head of the household of the child labour with 80.5% and Jammu and Kashmir showed the highest proportion of poor head of the household of the child labour with 63%. During 2004-05, Jammu and Kashmir consist highest proportion of non-poor head of the household of the child labour with 64% and Bihar consisted of highest proportion of poor head of the household of the child labour with 99.7% share. During 2011-12, Punjab consist highest proportion of non- poor head of the household of the child labour with 83% and Bihar consist highest proportion of poor head of the household of the child labour with 99%. From the above analysis, we observed that poverty leads to child labour in India. The issue of child labour arises from the households having low level of income.

4.2.4.1 Poverty ratio of head of the households of the child labourers among social groups

The main objective of this analysis is to understand the social background of the poor households of the child labourers. At national level, during 1999-00, 49.3 % of SC head of the household of the child labourer was poor followed by poor OBCs with 30% and „others" with 21%. During 2004-05, 42 % of poor household of the child labourers belongs to OBC social group was poor followed by SC with 41% and „others" with 17%. And, during 2011-12, 44% of poor household of the child labourers belongs to OBC social group was poor followed by SC with 44% and „others" with 16%.

At state level, during 1999-00, Punjab showed highest proportion of poor SC head of the household of the child labourers with 85%, Tamil Nadu showed highest proportion of poor among OBC head of the household of the child labourers with 72% and Jammu and Kashmir had highest proportion of poor among „Others" social group with 68%. During 2004-05, Orissa had highest proportion child labourers (77%) among the poor households belongs to SC social group, Tamil Nadu registered highest proportion of poor OBC head of the household of the child labourers with 68.4% and Assam had highest proportion of poor „Others" social group head of the household of the child labourers with 66%. During 2011-12, Rajasthan had the highest proportion of poor SC head of the household of the child labourers with 91%, Tamil Nadu reported highest proportion of poor OBC head of the household of the child labourers with 99% and West Bengal showed highest proportion of poor households belonged to „Others" social group with 93% (see Table 4.7 in Appendix).

Overall analysis revealed the followings:

- Incidences of child labourer was highest among the households occupied marginal size of landholding as compared to households occupied larger farm size during 19993-94 to 2011-12.This was true at all India level as well as state level.

- Incidence of male head of the households of child labourer occupied marginal size of landholding was more dominant than female head of the households of child labourers. This was true at national as well as state level during 1993-94 to 2011-12.

- The proportion of male head of the households of child labourers was continuously declined during 1993-94 to 2011-12 and reverse was true for the female. This was true at national level but variation can be found at state level.

- Incidence of child labour at the national level was the highest among the head of the households engaged in agriculture and allied activities followed by households employed in the industrial sector and service sector during 1993-94 to 2011-12 but the variation found at the state level.

- The proportion of head of the households engaged in agriculture and allied activities were declined during 1993-94 to 2011-12 while reverse was true for the industrial sector and service sector. This was true at all India level

- Highest incidence of child labourers belonged to illiterate households during 1993-94 to 2011-12 and this was true at all India level.

- Highest Incidence of child labourer found among poor head of the households during 1990-00 to 2011-12. This was true at national level but variation can be found at state level.

4.3 Determinates of participation of child labour in economic activities

To get a quantitative assessment of the incidence of child labour, logistic regression was used because the y-variable (Child labour) is categorical and dichotomous (1- participation in any economic activities, 0 otherwise), linear regression was not an option as the explanatory variables are also categorical, and logistic regression is ' better suited to such a situation, with the outcome being expressed in "odds ratios" rather than predicted values. Correspondingly, while the value of a particular variable like social group may not directly imply the incidence of child labour, it can be seen from some data analysis that, among working children, the probability of the family belonging to a particular social group is much higher than another. This result is encapsulated in the odds ratios that will be provided by the logistic regression. A logistic regression exercise has therefore been undertaken to ascertain the following:

- To obtain the odds of a child being in the work force, given the variations in the social groups, landholding size, types of economic activities of the head of the household, poverty level and educational level of the head of the household.

This section examines the logistic regression output that gives us the odds of a child being in the work force, regressed individual and household socio-economic characteristics.

The aim of this section is to analyse the odds of children being in the work force given the variation in the social groups, landholding size, economic activities of head of the household, educational levels, and poverty level of the head of the household from 1993-94 to 2011-12.

4.3.1 Results of Logistic regression 1993-94 to 2011-12.

Table 4.8 presents the parameter estimates of logit regression of a child's participation in an economic activity on a selection of demographic and socio-economic characteristics. The estimation was performed on a data set consisting of 85,684 observations on children.

Table 4.8 Results of Logistic regression for the year 1993-94.

Child labour	Odds Ratio	Std. Err.	z	P>z	[95% Conf.	Interval]
SC/ST: ref category						
Others	0.7307	0.0235	-9.75	0.0000	0.6860	0.7782
Illiterate : reference category						
Primary	0.5543	0.0199	-16.36	0.0000	0.5165	0.5949
Middle	0.2994	0.0200	-18.03	0.0000	0.2626	0.3414
Secondary	0.1927	0.0191	-16.61	0.0000	0.1587	0.2341
Higher secondary and above	0.1774	0.0174	-17.53	0.0000	0.1462	0.2152
Agriculture and allied activities : ref category						
Industrial sector	0.9510	0.0432	-1.11	0.2690	0.8699	1.0395
Service sector	0.6844	0.0313	-8.27	0.0000	0.6256	0.7488
Land holdings	1.0001	4.14E-05	3.26	0.0010	1.0000	1.0002
Non-poor: ref category						
Poor	0.6490	0.0675	-4.16	0.0000	0.5293	0.7958
constant	0.1864	0.0198	-15.77	0.0000	0.1512	0.2297

Number of observation = 85684; LR $chi^2(9)$ = 1817.82; prob>chi^2 =0.0000; Log likelihood = -17500.238

Social group: reference category 'SC/ST'

The odds ratio of child labour among social group throws up a very useful result. Children from „other" social group with factor of 0.73are less likely to be involved in child labour than children belong to SC/ST social group at 1 per cent level of significance. Note that here "SC/ST" (Social Group) has been taken as the reference group against which all the other groups are being compared.

Educational level of the head of the household

a) Illiterate: Reference Category.

b) Primary Level: Children literate upto primary level of education with factor of 0.73are less likely to be involved in work force than illiterate children at 1 per cent level of significance.

c) Middle Level: Children literate upto Middle Level of education a with factor of 0.55 are less likely to be involved in work force than illiterate children at 1 per cent level of significance.

d) Secondary Level: Children literate upto Secondary Level of education a with factor of 0.29 are less likely to be involved in work force than illiterate children at 1 per cent level of significance.

e) Higher Secondary and above Level: Children literate upto Higher Secondary and above Level of education with factor of 0.19 are less likely to be involved in work force than illiterate children at 1 per cent level of significance.

The logistic regression output for child labour versus the educational level of the head of the household indicates a strong association between education and child labour- literate head of household"s children are less likely to get employed in work force than illiterate head of household"s children. It is evident from the regression output that children who belongs to households where the person heading the family is illiterate has the highest odds of being in work force.

Economic activities of head of the households

a) Agriculture and allied sector: Reference category

b) Industrial sector: Child labour‟s head of the households employed in Industrial sector with factor of 0.95 are less likely to be involved in child labour than employed in agriculture and allied sector at 10 per cent level of significance.

c) Service sector: Children‟s head of the households employed in Service sector with factor of 0.68 are less likely to be involved in child labour than children employed in agriculture and allied sector at 1 per cent level of significance.

Taking agriculture and allied activities as the base category, we find that child labour‟s head of the households employed in Industrial sector has moderately higher odds of being involved in child labour than the service sector of the livelihood categories of the households. As against this, the odds of a child being in work force those head of the households are employed in service sector comparatively lower than the other. Thus, we find that the children who belong to households which are involved in either agriculture and allied activities or Industrial sector have the highest odds of being in work force as compared to the head of the households involve in the service sector.

Land holdings

Generally, the incidence of child labour has an inverse relationship with the size of landholding but logistic regression output for child labour versus landholding indicates that incidence of child labour has positive relationship with the size of landholding at 1 per cent level of significance.

Poverty ratio: reference category-'non poor'

Child labour among poverty indicates a fairly strong association between poverty and child labour- Generally, children from poor households (as defined in this dissertation– all head of the households having less monthly per capita expenditure than their state poverty line) are more likely to be involved in the work force but logistic regression output resulted that children from poor households with factor of 0.64are less likely to be involved in labour as children from non-poor households.

Table 4.9 Results of Logistic regression for the year 1999-00.

Child labour	Odds Ratio	Std. Err.	z	P>z	[95% Conf.	Interval]
SC/ST: ref category						
OBC	0.8595	0.0321	-4.05	0.0000	0.7988	0.9248
Others	0.6418	0.0280	-10.14	0.0000	0.5891	0.6992
Illiterate : reference category						
Primary	0.5654	0.0223	-14.43	0.0000	0.5232	0.6109
Middle	0.2906	0.0200	-17.89	0.0000	0.2538	0.3327
Secondary	0.1896	0.0188	-16.7	0.0000	0.1560	0.2305
Higher secondary and above	0.1523	0.0161	-17.79	0.0000	0.1238	0.1874
Agriculture and allied activities : ref category						
Industrial sector	0.9458	0.0421	-1.25	0.2120	0.8667	1.0322
Service sector	0.7434	0.0330	-6.66	0.0000	0.6813	0.8112
Land holdings	1.0001	5.91E-05	2	0.0460	1.0000	1.0002
Non-poor: ref category						
Poor	0.8698	0.0293	-4.13	0.0000	0.8142	0.9293
constant	0.0849	0.0029	-70.01	0.0000	0.0792	0.0910

Number of observations=110017; LR $chi^2(10)$ = 1751.66; prob>chi^2 =0.0000; Log likelihood = -16533.438

Social group: reference category 'SC/ST'

Children from OBC social group with factor of 0.85 are also less likely to be involved in child labour than children belong to SC/ST social group at 1 per cent level of significance and Children from „other" social group with factor of 0.64 are less likely to be involved in child labour than children belong to SC/ST social group at 1 per cent level of significance that implies children belongs to OBC social group has higher odds as compare to children belongs to „others"

social group. Note that here "SC/ST" (Social Group) has been taken as the reference group against which all the other groups are being compared.

Educational level of the head of the household

a) Illiterate: Reference Category.

b) Primary level: Children literate upto primary level of education with factor of 0.56 was less likely to be involved in work force than illiterate children at 1 per cent level of significance.

c) Middle level: Children literate upto middle level of education with factor of 0.29 was less likely to be involved in work force than illiterate children at 1 per cent level of significance.

d) Secondary level: Children literate upto secondary level of education with factor of 0.18 was less likely to be involved in work force than illiterate children at 1 per cent level of significance.

e) Higher Secondary and above Level: Children literate upto higher secondary and above level of education with factor of 0.15 were less likely to be involved in work force than illiterate children at 1 per cent level of significance.

Logistic regression output for the year 1999-00 resulted that child labour among the educational level of the head of the household has a strong association between education and child labour-literate head of household‟s children were less likely to being employed in child labour than illiterate head of households. It is evident from the regression output that children belongs to households where the person heading the family is illiterate has the highest odds of being in work force.

Economic activities of head of the households

a) Agriculture and allied sector: Reference category

b) Industrial sector: Child labour‟s head of the households employed in Industrial sector with factor of 0.94 were less likely to be involved in child labour than employed in agriculture and allied sector at 10 per cent level of significance.

c) Service sector: Children‟s head of the households employed in Service sector with factor of 0.74 were less likely to be involved in child labour than children employed in agriculture and allied sector at 1 per cent level of significance.

Taking agriculture and allied activities as the base category, we find that child labour‟s head of the households employed in Industrial sector has moderately higher odds of being involved in child labour than the service sector of the livelihood categories of the households. As against this, the odds of a child being in work force whose head of the households are employed in service sector comparatively lower than the other. Thus, we found that the children who belong to households which are involved in either agriculture and allied activities or Industrial sector have the highest odds of being in work force as compared to the head of the households involve in the service sector.

Land holdings

Generally, the incidence of child labour has an inverse relationship with the size of landholding but logistic regression output for child labour versus landholding indicates that incidence of child labour has positive relationship with the size of landholding at 5 per cent level of significance.

Poverty level reference-'Non Poor'

Again, logistic regression output for child labour among poverty resulted that children from poor households (as defined in this dissertation– all head of the households having less monthly per capita expenditure than their state poverty line) factor of .86 were less likely to be involved in labour as children from non-poor households.

Table 4.10 Results of Logistic regression for the year 2004-05

Child labour	Odds Ratio	Std. Err.	z	P>z	[95% Conf.	Interval]
SC/ST: ref category						
OBC	0.8380	0.0373	-3.96	0.0000	0.7679	0.9145
Others	0.7446	0.0405	-5.41	0.0000	0.6691	0.8285
Illiterate : reference category						
Primary	0.5573	0.0339	-9.59	0.0000	0.4945	0.6280
Middle	0.3385	0.0257	-14.21	0.0000	0.2915	0.3930
Secondary	0.1934	0.0243	-13.04	0.0000	0.1511	0.2476
Higher secondary and above	0.1749	0.0211	-14.41	0.0000	0.1380	0.2218
Agriculture and allied activities : ref category						
Industrial sector	0.9243	0.0462	-1.57	0.1160	0.8380	1.0196
Service sector	0.7792	0.0396	-4.9	0.0000	0.7053	0.8609
Land holdings	1.0000	8.38E-06	2.04	0.0410	1.0000	1.0000
Non-poor: ref category						
Poor	1.1882	0.0566	3.62	0.0000	1.0823	1.3046
constant	0.0516	0.0029	-52.57	0.0000	0.0462	0.0577

Number of observation = 89722; LR $chi^2(10)=1065.76$; $prob>chi^2 =0.0000$; Log likelihood = -11672.14

Social group: reference category 'SC/ST'

The odds ratio of child labour varies with the caste background of the households. Children belonged to OBC social group with factor of 0.83 were less likely to be involved in child labour than children belonged to SC/ST social group at 1 per cent level of significance and Children from „others" social group with factor of 0.74 were also less likely to be involved in child labour than children belonged to SC/ST social group at 1 per cent level of significance which implies

that children belonged to OBC social group has higher odds as compare to children belonged to „others" social group.

Educational level of the head of the household

a) Illiterate: Reference Category.

b) Primary Level: Children literate upto primary level of education with factor of 0.55 were less likely to be involved in work force than illiterate children at 1 per cent level of significance.

c) Middle Level: Children literate upto Middle Level of education with factor of 0.33 were less likely to be involved in work force than illiterate children at 1 per cent level of significance.

d) Secondary Level: Children literate upto secondary level of education a with factor of 0.19 were less likely to be involved in work force than illiterate children at 1 per cent level of significance.

e) Higher Secondary and above Level: Children literate upto higher secondary and above level of education with factor of 0.17 were less likely to be involved in work force than illiterate children at 1 per cent level of significance.

Child labour among the educational level of the head of the household indicates a strong association between education and child labour- literate head of household"s children were less likely to get employed in child labour than illiterate head of households. It is evident from the regression output that children belongs to households where the person heading the family was illiterate has the highest odds of being in work force. Children belong to literate (upto primary level) households has highest odds to being in work force as compared to other educational levels.

Economic activities of head of the households

a) Agriculture and allied sector: Reference category

b) Industrial sector: Child labour‟s head of the households employed in Industrial sector with factor of 0.92 were less likely to be involved in child labour than employed in agriculture and allied sector at 10 per cent level of significance.

c) Service sector: Children‟s head of the households employed in Service sector with factor of 0.77are less likely to be involved in child labour than children employed in agriculture and allied sector at 1 per cent level of significance.

Logistic regression resulted that children‟s head of the households employed in Industrial sector has higher odds of being involved in child labour than the service sector which imply that odds of a child being in work force whose head of the households are employed in service sector comparatively lower than the other. Thus, we find that the children who belong to households which are involved in either agriculture and allied activities or Industrial sector have the highest odds of being in work force as compared to the head of the households involve in the service sector.

Land holdings

Generally, the incidence of child labour has an inverse relationship with the size of landholding but logistic regression output for child labour among landholding indicates that incidence of child labour has positive relationship with the size of landholding at 5 per cent level of significance.

Poverty level reference-'non poor'

The logistic regression output for child labour among poverty indicates a fairly strong association between poverty and child labour- children from poor households (as defined in this dissertation– all head of the households having less monthly per capita expenditure than their state poverty line) factor of 1.18 were more likely to be involved in labour as children from non-poor households.

Table 4.11 Results of Logistic regression for the year 2011-12.

Child labour	Odds Ratio	Std. Err.	z	P>z	[95% Conf.	Interval]
SC/ST: ref category						
OBC	0.7934	0.0695	-2.64	0.0080	0.6682	0.9420
Others	0.8346	0.0890	-1.69	0.0900	0.6771	1.0287
Illiterate : reference category						
Primary	0.5123	0.0627	-5.46	0.0000	0.4029	0.6514
Middle	0.3670	0.0484	-7.59	0.0000	0.2833	0.4754
Secondary	0.1890	0.0385	-8.17	0.0000	0.1267	0.2819
Higher secondary and above	0.1689	0.0329	-9.12	0.0000	0.1153	0.2476
Agriculture and allied activities : ref category						
Industrial sector	0.9382	0.0877	-0.68	0.4960	0.7810	1.1270
Service sector	0.7336	0.0757	-3	0.0030	0.5992	0.8981
Land holdings	0.9999	2.47E-05	-0.35	0.7250	0.9999	1.000
Non-poor: ref category						
Poor	1.3205	0.1125	3.26	0.0010	1.1173	1.5606
constant	0.0209	0.0022	-35.95	0.0000	0.0169	0.0258

Number of observation = 61929; LR $chi^2(9)$ = 356.31; prob>chi^2 =0.0000; Log likelihood = -3601.978

Social group: reference category 'SC/ST'

The odds ratio of child labour among social group throws up a very dramatic result. Children belong to OBC social group with factor of 0.79 were also less likely to be involved in child labour than children belong to SC/ST social group at 1 per cent level of significance and Children from „other" social group with factor of 0.83 were less likely to be involved in child labour than children belong to SC/ST social group at 1 per cent level of significance. Generally, Children belong to OBC social group children has higher odds than „others" social group to be

employed in work force but the Logit regression output resulted children belong to „others" social group has higher odds as compare to children belongs to OBC social group.

Educational level of the head of the household

a) Illiterate: Reference Category.

b) Primary Level: Children literate upto primary level of education with factor of 0.51 were less likely to be involved in work force than illiterate children at 1 per cent level of significance.

c) Middle Level: Children literate upto middle level of education with factor of 0.36 were less likely to be involved in work force than illiterate children at 1 per cent level of significance.

d) Secondary Level: Children literate upto secondary level of education with factor of 0.18 were less likely to be involved in work force than illiterate children at 1 per cent level of significance.

e) Higher Secondary and above Level: children literate upto higher secondary and above level of education with factor of 0.16 were less likely to be involved in work force than illiterate children at 1 per cent level of significance.

The logistic regression output for child labour among the educational level of the head of the household indicates a strong association between education and child labour- literate head of household"s children were less likely to get employed in child labour than illiterate head of households. It is evident from the regression output that children belongs to households where the person heading the family is illiterate has the highest odds of being in work force. Children belong to literate (upto primary level) head of the household"s has highest odds to being in work force as compared to other educational levels.

Economic activities of head of the households

a) Agriculture and allied sector: Reference category

b) Industrial sector: Child labour"s head of the households employed in Industrial sector with factor of 0.93 were less likely to be involved in child labour than employed in agriculture and allied sector at 10 per cent level of significance.

c) Service sector: Children‟s head of the households employed in Service sector with factor of 0.73 were less likely to be involved in child labour than children employed in agriculture and allied sector at 1 per cent level of significance.

Results of logit regression showing that child labour‟s head of the households employed in Industrial sector has moderately higher odds of being involved in child labour than the service sector of the livelihood categories of the households. Significantly, children belong to households which are involved in either agriculture and allied activities or Industrial sector have the highest odds of being in work force as compared to the head of the households involve in the service sector.

Land holdings

Generally, the incidence of child labour has an inverse relationship with the size of landholding but logistic regression output for child labour among landholding indicates that incidence of child labour has positive relationship with the size of landholding at 1 per cent level of significance.

Poverty level reference-'Non Poor'

Again, logistic regression output for child labour among poverty resulted children from poor households (as defined in this dissertation– all head of the households having less monthly per capita expenditure than their state poverty line) factor of 1.32 were more likely to be involved in labour as children from non-poor households.

4.4 Summing up

Finally, the logistic regression analysis undertaken in this study provides statistical evidence to demonstrate that economic vulnerability of the household, reflected in small asset base (land and capital), and poverty act as a strong stimulus to children taking up work.

In reference to child labour an extremely strong relationship between the social background of the child's family and the incidence of child labour in the household was observed. From the logistic regression analysis of child labour we find that a child from scheduled caste and backward caste was more likely to be involved in the work force as compared to the children

from the upper caste. It is evident from the logistic regression output that children belonging to households where the person heading the family is illiterate has the highest odds of being in work force. Similarly, children who belong to households which are involved in agriculture and allied activities are more likely to be involved in labour activities as compared to the children from households who belong to other economic activities. Further, children from poor households were more likely to be working in workforce as compared to children from non-poor households during 2004-05 to 2011-12.

CHAPTER V

SUMMARY AND CONCLUSION

5.1 Introduction

Childhood is a period of school-learning, of recreation, of physical, mental and social development, and not primarily of income bearing work. The spread of mass education and elimination of child labor are the interrelated features of development of children. The prevalence of child labor can be grouped into two broad categories: demand-side and supply-side factors. On the demand side, the segmented labor market and demand for low-wage labor or specialized labor is used to explain the presence of child workers. On the supply side, most importantly, poverty is a major contributor to child labour.

Relatively little has been documented with a quantitative assessment of child labour. Most of the existing studies on child labour have firstly tended to pool the sex-wise data for all the social groups of the society. This aggregation prevented the identification of the core-social groups that the child labour belongs to. Secondly, very few studies have been able to identify the differences in the types of work performed by boys and girls. Thirdly, the economic characteristics of the households from which child labour came have not been examined in detail. Moreover, the impact of parental education on the phenomenon of child labour has been largely ignored in the existing studies. Thus, it is hard to say whether deprivation, (which is in the form of lack of education), is distress induced or it is a non distress induced phenomenon, involving factors other than poverty.

Present study is an attempt made to analyse the incidence of child labour among fifteen major states of India, and to establish the inter-linkages between child labour and their head of the household‟s income and landholdings, social status, gender, educational levels and other relevant factors. The type of work that boys and girls undertake in different economic activities has been studied in detailed. Further, the household‟s characteristics of the children whose work is directly productive has been analyzed in detailed. These households‟ characteristics include land owned, occupation pursued, poverty level, and education status of the head of the households.

In this study, an attempt has been made to systematically estimate the incidence of child labour at the state level. Finally, building on previous studies on determinants of child labour in India, we have attempted to identify the causes by capturing the direct and the indirect impact of relevant economic factors on the incidence of child labour. This study hypothesized that incidences of child labour strongly associated with size of land holding, occupation of the head of the households, educational background of the head of the households, level of income of head of the households, and their social background.

This study has attempted to examine child labour at state level covering 15 major states of India. They are Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Jammu and Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal. This study did not included Himachal Pradesh and Kerala due to insufficient number of observations. Data from the National Sample Survey (NSS) 50^{th}, 55^{th}, 61^{st}, and 68^{th} round of Employment and Unemployment Survey conducted in 1993-1994, 1999-2000, 2004-2005, and 2011-12 respectively, has used to conduct the relevant analyses for this study. Logistic regression has used to conduct a quantitative analysis and to statistically test the proposed hypotheses.

5.2 Summary of findings

Incidences of child labour had reduced from 6.5% to 1.5% during 1993-94 to 2011-12. Among gender, male child labourers occupied highest incidence of child labour in India than female and this was true only at national level while variation can be found at the state level. Among sectors, rural areas of India recorded higher proportion of child labour but their proportion of child labour in rural India has declined during 1993-94 to 2011-12. This was true at all India level as well as state level. And, Proportion of child labourers in urban India was very much lower than the proportion in rural India but the proportion of child labourers increased during 1993-94 to 2011-12 in urban India. Among social groups, the incidence of child labour was the highest among schedule castes as compared to the OBC and the 'others' categories in 1999-00 but during 2004-05 to 2011-12 the incidence of child labour was slightly highest among the OBC as compared to

schedule castes followed by the 'others' category of social group. This was true at national level and variation can be found at the state level.

Among the economic activities of child labourers, highest proportion of child labourers were employed in agriculture and allied activities, followed by industrial sector and service sector during 1993-94 to 2011-12. This was true only at national level while variation can be found at the state level. The proportion of child labourers employed in agriculture and allied sector was reduced during 1993-94 to 2011-12 but their proportions remained highest among the other sectors. The proportion of child labourers employed in Industrial sector increased during 1993-94 to 2011-12 and the proportion of child labourers employed in service sector had also increased during 1993-94 to 2004-05 but declined in 2011-12.Male child labourers employed in agriculture and allied sector were dominate the female child labourers during 1993-94 to 2004-05 while during 2011-12 female child labourers dominates the male child labourers. Female child labourers employed in industrial sector were dominated the male child labourers during 1993-94 to 1999-00 and reverse true for 2004-05 to 2011-12. And, male child labourers employed in service sector were dominated the female child labourers during 1993-94 to 2011-12. In rural India, highest proportion of child labourers were employed in agriculture and allied activities across states in India and their proportion has declined during 1993-94 to 2011-12. This is true at national as well as state level. On the other hand in urban India, highest proportion of child labour was employed in industrial sector during 1993-94 to 2011-12 while during 2004-05 to 2011-12, highest proportion of child labour were employed in service sector. This is true at all India level and variation found at state level.

Gender differences in the pattern of literate working children were different from illiterate working children (literate male child labourers dominated the female child labourers). At all India level, percentages of illiterate children employed in workforce were higher than literate children during 1993-94 to 2011-12. The literate male child labourers dominated the female child labourers during 1993-94 to 2011-12. And, incidences of literate children up to primary education level were higher in the work force as compared to other educational levels during 1993-94 to 2011-12. The Proportion of illiterate child labour has decreased during 1993-94 to 2011-12 except 2004-05 at all India level and variation can be found across states.

Poverty is the root cause of child labour. A majority of the child labourers in poor households (as defined in this dissertation: all Head of the households having monthly per capita expenditure less than state specific poverty line). Hence, the occupation of the head of the households (proxy of parents of child labour) is a key determinant in the incidence of child labour. Working children whose head of the households are employed in agriculture and allied sector are more likely to be working as child labour than those whose parents are employed in Industrial and service sector.

Logit regression was used to examine the influence of selected demographic, social and economic characteristics on child labour. Household‟s poverty is the most important reasons for children entering the work force followed by the economic development of the states. Similarly the nature of occupation of the household (agriculture and allied sector versus industrial sector) is the most important factors in determining boy's involvement in workforce followed by poverty of the households. Finally, parents' occupation, poverty levels of the household and the educational levels of the heads of the households determine the likelihood of being children in work force. It was also observed that among the social groups, all other things being equal, a child from the "lower caste" SCs are more likely to be involved in work force during 1993-94 to 2011-12.

Conclusions

- Analysing of incidence of „child labour' showed that most of this originates from the poor category of households.
- Literate children were less likely to be employed in the work force than the illiterate children.
- Gender differences in the pattern of literate working children were different from illiterate working children (literate male child labourers dominated the female child labourers).
- Children of those head of the households employed in agriculture and allied sector were more likely to be employed in the work force than those parents were employed in Industrial and service sector.
- The core group from which the majority of child labour (both full-time and part-time) belonged to Schedule caste (SC) households having a low monthly per capita expenditure and owning less than one hectare of land or working in agriculture and allied sector.

5.4 Policy Implications

The analysis indicates that the reasons for children engaged in agriculture and allied sector are largely economic, i.e., they work to supplement household income and lack of education. There are some policy suggestions that can be considered to address the problem of child labour:

- Government should focus on employment generation that will help poor households to get more opportunities for employment in non-agricultural sector as agriculture and allied sector still remain as low productive sector.
- Government should focus on skill development that will help to enhance the level of income of the poor households.
- Government should focus on proper implementation of laws and policies in favour of poor children to eliminate problem of child labour.
- Government should focus on rising levels of awareness among the adult members of the households to discourage child labour, and encourage child schooling.

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Appendix

Table 3.9 (a) Percentages of child labourersemployed in Economic activity in the rural areas of India (1993-94 to 2011-12).

(Per Cent)

	1993-94			1999-00			2004-05			2011-12		
States	Agriculture and Allied activities	Industrial sector	Service sector	Agriculture and Allied activities	Industrial sector	Service sector	Agriculture and Allied activities	Industrial sector	Service sector	Agriculture and Allied activities	Industrial sector	Service sector
Andhra Pradesh	84.2	9.0	6.9	86.5	7.6	5.8	80.5	7.3	12.2	94.9	1.4	3.7
Assam	75.9	3.5	20.6	57.5	7.6	34.9	66.4	10.1	23.5	74.6	15.9	9.5
Bihar	85.0	6.8	8.3	76.8	15.0	8.2	74.6	11.1	14.3	81.7	15.9	2.4
Gujarat	86.7	10.9	2.4	80.8	8.8	10.4	88.6	3.4	8.0	98.9	0.3	0.8
Haryana	93.4	4.4	2.2	62.9	23.5	13.6	75.4	5.2	19.5	95.9	4.1	0.0
Jammu And Kashmir	99.6	0.0	0.4	89.3	10.7	0.0	80.7	18.9	0.4	92.3	0.0	7.7
Karnataka	83.9	13.7	2.3	89.1	5.9	5.0	79.8	11.2	9.0	98.0	2.0	0.0
Madhya Pradesh	94.9	3.4	1.8	93.3	5.0	1.8	91.0	7.4	1.6	86.8	9.2	4.1
Maharashtra	92.3	5.2	2.5	97.4	1.5	1.1	90.6	4.6	4.8	79.9	2.4	17.7
Orissa	83.0	11.0	6.0	74.2	23.1	2.7	70.7	24.2	5.1	61.1	38.9	0.0
Punjab	92.6	2.3	5.1	82.5	6.4	11.1	70.1	26.4	3.6	38.7	57.5	3.9
Rajasthan	94.7	4.4	0.9	93.9	3.3	2.8	72.8	24.6	2.6	63.4	35.0	1.6
Tamil Nadu	62.8	30.7	6.5	54.6	42.1	3.4	64.8	19.8	15.4	36.7	62.0	1.3
Uttar Pradesh	81.9	9.5	8.7	75.8	15.7	8.5	75.1	13.5	11.4	63.7	29.4	6.9
West Bengal	61.7	24.8	13.6	43.6	49.4	7.1	58.1	25.7	16.2	48.7	47.5	3.9
India	83.7	10.7	5.6	80.9	13.3	5.8	77.2	13.8	9.0	72.0	23.0	5.0

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12

Table 3.9 (b) Percentages of child labourers employed in Economic activities in the urban areas of India (1993-94 to 2011-12).

(Per Cent)

	1993-94			1999-00			2004-05			2011-12		
States	Agriculture and Allied activities	Industrial sector	Service sector	Agriculture and Allied activities	Industrial sector	Service sector	Agriculture and Allied activities	Industrial sector	Service sector	Agriculture and Allied activities	Industrial sector	Service sector
Andhra Pradesh	27.8	30.8	41.5	4.7	43.9	51.4	13.2	41.9	44.9	12.7	9.4	77.9
Assam	2.5	4.5	93.0	2.1	0.0	97.9	5.4	1.8	92.8	34.2	0.0	65.8
Bihar	22.0	34.7	43.3	10.6	29.4	60.0	23.4	12.8	63.8	10.8	24.0	65.2
Gujarat	18.0	28.4	53.6	41.6	41.1	17.4	30.5	8.8	60.7	34.0	6.5	59.5
Haryana	19.7	16.2	64.1	42.8	2.7	54.6	26.0	22.7	51.3	0.0	44.1	55.9
Jammu And Kashmir	47.4	0.0	52.7	48.2	20.9	30.9	0.0	98.9	1.1	31.3	38.2	30.5
Karnataka	24.2	31.2	44.6	15.9	46.5	37.5	20.6	33.0	46.4	0.0	36.3	63.7
Madhya Pradesh	27.9	26.6	45.6	19.3	18.2	62.5	28.6	20.7	50.6	11.7	17.0	71.3
Maharashtra	14.6	28.9	56.6	8.2	33.7	58.1	26.2	31.6	42.2	17.6	9.3	73.1
Orissa	28.0	27.4	44.6	27.7	49.1	23.2	41.6	17.9	40.4	67.1	0.6	32.3
Punjab	7.4	34.2	58.5	4.0	13.3	82.7	8.1	4.4	87.5	0.0	42.9	57.1
Rajasthan	27.5	43.3	29.2	32.6	36.3	31.1	8.7	36.6	54.7	6.8	59.5	33.7
Tamil Nadu	8.7	61.3	30.0	2.4	45.8	51.8	10.8	50.8	38.5	0.0	85.4	14.6
Uttar Pradesh	16.5	38.6	44.9	6.8	41.6	51.6	7.8	58.2	34.0	11.8	55.1	33.1
West Bengal	16.0	38.6	45.4	0.0	39.1	60.9	3.4	61.3	35.4	0.0	99.3	0.7
India	19.0	37.2	43.8	10.7	37.6	51.7	13.1	44.5	42.4	10.8	60.0	29.2

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12.

Table 4.3 proportion of Head of the Household of child labour under Marginal landholding category - by gender

(Per cent)

	1993-94		1999-00		2004-05		2011-12	
States	Male	Female	Male	Female	Male	Female	Male	Female
Andhra Pradesh	92.3	7.7	89.3	10.8	88.0	12.0	91.6	8.4
Assam	97.4	2.6	81.9	18.1	95.9	4.1	84.1	15.9
Bihar	93.1	6.9	91.6	8.5	91.0	9.0	90.4	9.6
Gujarat	95.2	4.8	96.0	4.0	89.4	10.6	85.3	14.7
Haryana	69.4	30.6	100	0.0	93.8	6.2	100	0.0
Jammu and Kashmir	94.3	5.7	97.5	2.5	91.6	8.4	98.6	1.5
Karnataka	92.9	7.1	88.8	11.2	84.2	15.8	36.4	63.7
Madhya Pradesh	93.4	6.7	93.2	6.8	90.3	9.8	89.8	10.3
Maharashtra	86.2	13.8	93.1	6.9	89.9	10.1	62.3	37.7
Orissa	89.1	10.9	91.4	8.6	86.6	13.4	71.2	28.8
Punjab	95.5	4.5	93.9	6.1	90.5	9.5	86.5	13.5
Rajasthan	95.2	4.8	94.8	5.2	93.6	6.4	57.2	42.8
Tamil Nadu	95.3	4.7	86.8	13.2	91.1	8.9	100	0.0
Uttar Pradesh	90.4	9.6	92.1	7.9	85.9	14.1	80.5	19.6
West Bengal	91.7	8.3	90.5	9.5	93.1	6.9	86.7	13.4
India	91.3	8.7	91.0	9.0	88.7	11.3	80.6	19.4

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12.

Table 4.4 Percentage of the head of the households of child labourers employed in economic activities – (1993-94 to 2011-12).

(Per Cent)

	1993-94			1999-00			2004-05			2011-12		
States	Agriculture and Allied activities	Industrial sector	Service sector	Agriculture and Allied activities	Industrial sector	Service sector	Agriculture and Allied activities	Industrial sector	Service sector	Agriculture and Allied activities	Industrial sector	Service sector
Andhra Pradesh	73.5	10.8	15.7	71.8	14.0	14.3	63.8	14.4	21.8	80.7	3.6	15.8
Assam	61.3	5.1	33.6	46.7	6.1	47.2	65.0	11.0	24.0	66.9	7.8	25.2
Bihar	81.9	7.1	11.0	73.5	10.1	16.3	64.4	13.0	22.6	73.1	19.4	7.6
Gujarat	76.4	9.7	13.8	74.5	10.7	14.8	76.0	10.6	13.4	78.4	6.0	15.6
Haryana	62.9	13.1	24.0	63.3	18.0	18.7	58.8	9.3	32.0	69.3	19.8	10.9
Jammu And Kashmir	72.0	21.7	6.3	56.7	40.7	2.6	45.5	54.3	0.2	42.7	38.8	18.5
Karnataka	71.2	16.1	12.6	78.5	7.9	13.6	78.6	10.6	10.8	88.5	2.3	9.2
Madhya Pradesh	90.5	5.1	4.3	87.0	6.4	6.6	84.2	7.9	7.9	65.9	28.5	5.6
Maharashtra	75.0	12.2	12.9	80.1	10.0	9.9	82.5	8.1	9.4	80.3	1.6	18.2
Orissa	78.4	11.2	10.5	81.2	12.9	5.9	69.4	21.5	9.1	41.0	40.6	18.4
Punjab	65.4	11.0	23.6	56.6	20.0	23.4	51.9	23.8	24.4	47.3	47.7	4.9
Rajasthan	69.1	22.2	8.7	72.5	20.0	7.5	61.4	27.8	10.8	65.1	31.4	3.5
Tamil Nadu	60.9	23.5	15.6	55.4	27.0	17.6	44.2	30.2	25.6	35.2	14.1	50.7
Uttar Pradesh	67.1	15.7	17.2	58.0	18.2	23.7	58.4	23.4	18.2	50.7	27.4	21.9
West Bengal	63.2	18.7	18.1	57.1	25.3	17.6	52.9	23.7	23.5	24.9	59.8	15.3
India	72.3	14.2	13.5	70.3	14.9	14.8	65.8	18.3	15.9	57.1	27.0	15.9

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12.

Table 4.7 Social group-wise proportions of poor head of the households of child labourers to total population of child labourer's head of the households, 1999-00 to 2011-12.

(Per Cent)

	1999-00			2004-05			2011-12		
States	SC/ST	OBC	Others	SC/ST	OBC	Others	SC/ST	OBC	Others
Andhra Pradesh	44.8	38.2	17.0	34.2	47.8	18.0	0.7	91.8	7.5
Assam	28.3	18.0	53.7	41.4	1.4	57.2	63.8	0.0	36.2
Bihar	40.6	45.6	13.7	26.3	56.7	17.0	51.3	47.3	1.4
Gujarat	73.6	24.4	2.0	50.7	42.0	7.4	21.2	78.5	0.4
Haryana	52.0	9.5	38.4	70.1	8.9	21.1	60.8	0.0	39.2
Jammu And Kashmir	33.4	0.0	66.7	36.9	0.0	63.1	7.2	17.3	75.4
Karnataka	40.9	31.7	27.4	46.8	38.3	14.9	40.9	59.1	0.0
Madhya Pradesh	68.3	25.5	6.2	60.8	33.4	5.8	67.5	30.7	1.8
Maharashtra	57.5	25.1	17.4	34.5	40.2	25.3	56.6	29.5	13.9
Orissa	80.4	16.3	3.3	77.3	20.3	2.4	70.0	30.0	0.0
Punjab	85.3	2.9	11.9	50.4	39.8	9.8	40.3	0.0	59.7
Rajasthan	65.7	22.1	12.3	62.9	31.9	5.2	90.9	9.1	0.0
Tamil Nadu	25.9	71.7	2.4	31.6	68.4	0.0	1.1	98.9	0.0
Uttar Pradesh	38.4	41.6	20.1	27.4	58.1	14.5	31.5	51.5	17.0
West Bengal	28.4	5.2	66.4	31.4	2.5	66.1	0.7	6.6	92.7
India	49.3	29.9	20.9	41.0	42.0	17.0	40.0	44.0	16.0

Source: Calculated by unit level NSS data - employment and unemployment survey, 1993-94 to 2011-12.