

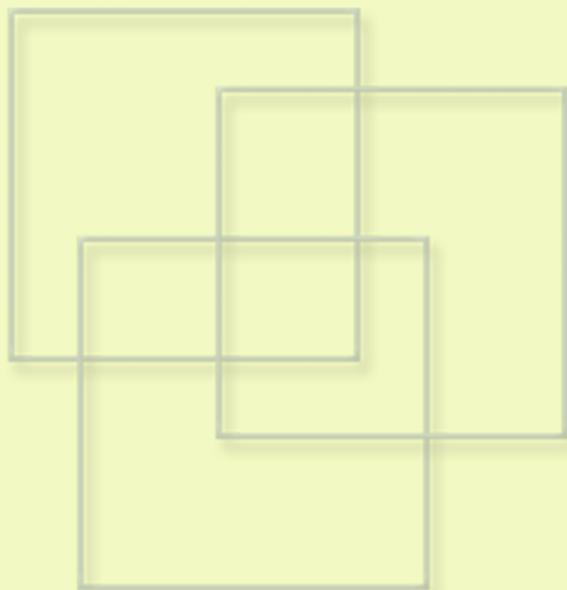


International
Labour
Organization

ILO Asia-Pacific Working Paper Series

Perspectives on children's work and schooling: Evidence from a longitudinal study in Andhra Pradesh and Telangana, India

Renu Singh and Sherin Khan
August 2016



DWT for South Asia and Country Office for India

ILO Asia-Pacific Working Paper Series

Perspectives on children's work and schooling:
Evidence from a longitudinal study in
Andhra Pradesh and Telangana, India

Renu Singh and Sherin Khan

August 2016

DWT for South Asia and Country Office for India

Copyright © International Labour Organization 2016
First published 2016

Publications of the International Labour Office enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorization, on condition that the source is indicated. For rights of reproduction or translation, application should be made to ILO Publications (Rights and Licensing), International Labour Office, CH-1211 Geneva 22, Switzerland, or by email: rights@ilo.org. The International Labour Office welcomes such applications.

Libraries, institutions and other users registered with a reproduction rights organization may make copies in accordance with the licences issued to them for this purpose. Visit www.ifro.org to find the reproduction rights organization in your country.

ILO Cataloguing in Publication Data

Singh, Renu; Khan, Sherin.

Perspectives on children's work and schooling: evidence from a longitudinal study in Andhra Pradesh and Telangana, India / Renu Singh, Sherin Khan; International Labour Organization; ILO DWT for South Asia and ILO Country Office for India. - New Delhi: ILO, 2016.

(ILO Asia-Pacific working paper series, ISSN: 2227-4391; 2227-4405 (web pdf))

International Labour Organization

child labour / child worker / schooling / rights of the child / youth policy / regional level / India

13.01.2

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

ILO publications and digital products can be obtained through major booksellers and digital distribution platforms, or ordered directly from ilo@turpin-distribution.com. For more information, visit our website: www.ilo.org/publns or contact ilopubs@ilo.org.

Cover photos: centre photo © Young Lives India; side photos © ILO
Printed in India

Preface

The International Labour Organization (ILO) is devoted to advancing opportunities for women and men to obtain decent and productive work and to the elimination of child labour. It aims to promote rights at work, encourage decent employment opportunities, enhance social protection and strengthen dialogue in handling work-related issues. Among the fundamental rights at work is the abolition of child labour – an objective that clearly requires a well-functioning and accessible education system that provides quality education to all children. The relationship between education and minimum age for admission to employment or work and the age that sets the upper limit for compulsory education is important. The ILO Convention on Minimum Age for Employment, 1973 (No. 138) calls for alignment between the two ages.

Consistent with the ILO's 2015 World Report on Child Labour, which concludes that child labour leads to lower educational attainment and jobs that are not decent, the data from Andhra Pradesh and Telangana presented in this paper shows that of the large number of children who are balancing work and education, within and outside their homes, 61 per cent are less likely to complete secondary education as against those who are in full time education. The data also points to negative effects of three and more hours per day of domestic chores, with 50 per cent of them less likely to complete secondary education in comparison to children who did not undertake chores. On the other hand, the data shows that for the majority of children who combined unpaid work and schooling or were in full time education at 12 years, were found to be continuing education at 19 years of age.

The data and conclusions highlight important issues, re-affirming the negative effects of work, but it also important raises questions that need further more in-depth investigation into the situation and the impacts. Also, highlighted is the need to better integrate the voices of children in policy discussions and consideration.

This paper is part of the ILO Asia-Pacific Working Paper Series, which is intended to enhance the body of knowledge, stimulate discussion and encourage knowledge sharing and further research and analysis to better understand the work and education contexts of children and thereby for the promotion of decent work in Asia and the Pacific.

Panudda Boonpala

Director, ILO DWT for South Asia and
Country Office for India

Table of contents

Preface	i
Acknowledgements	v
Executive summary	vii
Abbreviations	xi
1. Introduction	1
1.1 What is child labour	1
1.2 Children’s work in India – status and sector	2
1.3 Child labour estimates in India and Andhra Pradesh	3
1.4 Scope of the paper	4
2. Methodology	5
2.1 Data source	5
2.2 Qualitative sub-sample research	9
3. Schooling and child labour linkages	9
3.1 Decreasing enrolment across time	9
3.2 Factors leading to discontinuation of schooling	11
3.2.1 Costs related to schooling	12
3.2.2 Child marriage	14
3.2.3 Gender discrimination	16
3.3 Parental aspirations	16
4. Children’s time use and work status	17
4.1 Paid work	17
5. Activities at age 12 and 15 years for children no longer in school	19
5.1 How children spend their time	20
5.2 Children’s voices	21
5.2.1 Balancing school and work: children’s perceptions and experiences	22
6. Work and educational outcome linkages	26
6.1 School completion	26
6.2 The paths from paid work at age 12	27
6.3 Gender disparity in probability of secondary school completion	29
7. Conclusion	30
7.1 Towards policy consideration	32
7.2 Way forward	35
References	37

List of figures

1. Incidence of child labour reported in census 2001 and 2011	4
2. Map of undivided Andhra Pradesh with Young Lives study sites	6
3. Enrolment of study participants at age 8, 12, 15 and 19 years	11
4. Percentage of children doing paid work across rounds	17
5. (a) Type of work activities undertaken by children no longer in school in round 2 (%).....	19
(b) Type of work activities undertaken by children no longer in school in round 3 (%)	19
6. Occupation Status of children of ages 2-12.....	22
7. Percentage of children (12 years old) doing paid work, unpaid work, combining work and education and in full time education by caste	24
8. Percentage of children (12 years old) doing paid work, unpaid work, combining work and education and in full time education by location	25
9. Predicted probability of completing secondary education (by gender and paid work (aged 12)	29

List of tables

1. Child labour estimates in India and undivided Andhra Pradesh.....	3
2. List of background variables used in multivariate analysis	7
3. Survey dates and ages of Young Lives sample children	8
4. Enrolment and dropout.....	10
5. Marriage and fertility at age 19	14
6. Children who report working for wages (R1-R3, %)	18
7. Time use comparison of boys and girls at age 12, 15 and 19.....	20
8. Description of children in each activity category in Round 2 (Age 12)	23
9. Work status at age 12 and occupation of children at 19 years of age (R2 and R4)	26
10. Odds ratio representing livelihood of completing secondary education	28
11. Gender differential in secondary completion by occupation at age 12	30

Acknowledgements

This paper benefited from valuable comments and inputs, particularly from participants at the Technical Consultation on World Day against Child Labour (12 June 2015), the statistical support provided by Protap Mukherjee and Sudipa Sarkar, the review undertaken by Sarah Gontarek, Bharti Birla and Kanika Malik, and formatting support by Vasundhra Srivastava and Ruchika Chaudhary. The paper draws on the data and experiences of the Young Lives study in India, led by Renu Singh. The paper was prepared under the coordination and with contribution of Sherin R. Khan. Thanks are also extended to all the children and families whose participation in the Young Lives longitudinal study, make it possible to have the rich data for analysis and perspectives. The views expressed in the paper are the sole responsibility of the authors.

Executive summary

This report draws upon Young Lives India's longitudinal data from 20 locations throughout the diverse south-eastern Indian states of Andhra Pradesh and Telangana for 1,000 children, as well as on voices of the children on whom data is being collected. The analysis seeks to enhance understanding of the kinds of work children are involved in, and the implication of children's work on their long-term educational outcomes and occupational choices. The paper provides both a quantitative evidence base and a qualitative perspective of possible impact. The reasons why children are pulled out of school, or drop out to take up work before they have completed their elementary schooling are important for policy makers and practitioners as they direct resources and develop and implement policies and programmes. Yet, more often than not, these areas present critical knowledge gaps. Analysing data related to 1,000 children aged 7-8, 11-12, 14-15 and 18-19 through four rounds of quantitative surveys, this paper provides evidence with the intention of generating thoughtful and constructive dialogue on issues related to child labour and children's work within and outside the household. The longitudinal data distinguishes between paid and unpaid work. Combining this work related data with data on schooling makes it possible to distinguish between children engaged in full-time school and those combining school and work. The data and qualitative information bring to light the impact of early work on educational outcomes for adolescents.

This report draws attention to two significant but less researched areas related to children's work and education. Firstly, a large proportion of the children were found combining school and work (both paid and unpaid) as they grew older. While 16 per cent of the children at the ages of 11-12 were involved in paid and unpaid work, this increased to almost 58 per cent by the time the children were aged 14-15, near the end of their elementary education. Among those aged 14-15, nearly half were combining school and unpaid work, such as domestic chores and care work within their own homes and on their farms; another 13 per cent were combining school and paid work. This suggests that many children between the ages of 12 and 15 years combine some form of work and schooling, and that the number of children in full-time education decreases as children enter upper primary schooling (Grades 6-8).

Secondly, the analysis shows that more boys joined paid work between the ages of 8 and 12 years (20 per cent) than girls (11 per cent), but at age 15 this rate had almost evened with 29 per cent boys and 27 per cent girls working for wages. There also appears a huge rural-urban divide with only 6 per cent urban children working for wages at the age of 12 as against 27 per cent rural children. By the age of 15 years, 40 per cent of children belonging to Scheduled Caste and Scheduled Tribes were working for wages, as against 26 per cent from Backward Classes and 12 per cent from Other Castes, suggesting caste-based disparity. Many of these children, however continued to combine school and work. Furthermore, time use analysis shows gendered patterns with girls spending significantly more time in household chores and caring for others and less time on studies and leisure activities than boys at age of 12 and 15 years. Girls remained more disadvantaged as compared to boys, and are 41 per cent less likely to complete secondary education.

The qualitative analysis based on testimony of children and their family members and information from quantitative surveys show that shocks related to crop failure, missing school during peak season in the agricultural cycle such as harvesting or sowing, child marriage, as well as household loans and costs of secondary education (private schools in particular) can have a detrimental effect on their education. When children in rural areas ranked their daily activities in terms of favourability, they ranked school as their most-liked activity, followed by domestic tasks. Farm work was least popular.

The longitudinal nature of the data made it possible to examine association between early work and later educational outcomes, such as secondary school completion, for those at the higher age range up to 19 years. The data shows that enrolment in school is a decreasing trend as the same children are followed from the age of 8 in 2002 to 19 years of age in 2013. While 2 per cent children were not attending school at the age of eight, the drop-out rate between the ages of 12-15 years was over 12 per cent and this doubled to more than 28 per cent between the ages of 15 and 19 years. A bivariate cross-tabulation was conducted to examine the effect of early work at age 12 on the educational outcome variable at age 19 years, as well as a binary logistic regression analysis after controlling for selected background variables such as gender, parental education, and wealth index. Background factors such as family social and economic status, contrasts between urban and rural communities, and gender are controlled and analysed in depth.

The findings show that children who did paid work at age 12 had adverse educational outcomes for both secondary and senior secondary completion.

- Of those combining paid work and education, less than half (49 per cent) completed their secondary schooling, while only one out of every five (21 per cent) completed their senior secondary. This is in contrast to those who did not participate in paid work where 77 per cent completed secondary education, while 52 per cent completed senior secondary education

The longitudinal analysis drawing on occupational and educational outcomes for children at age 19 (Round 4) clearly demonstrates that the combination of paid work and schooling results in increased long-term negative consequences for adolescents. The consequences of combining schooling and unpaid work is severe in cases where children work more than three hours per day, every day, within their homes and farms. The more the hours of work in this combination, the greater the negative consequences on schooling.

- Of those investing three hours or more per day on unpaid work while continuing schooling at age 12, only one in three (34 per cent) completed their secondary education, while one in five (20 per cent) completed their senior secondary schooling.
- Of the children who spent one hour per day in unpaid work, 75 per cent completed secondary school and 44 per cent completed senior secondary school.

Logistic regression showed that children who participated in paid work at the age of 12, were 27 per cent less likely to progress through secondary education. Spending more than three hours per day in domestic chores reduced a child's chances of completing grade (class) ten by 50 per cent, as compared to those who did not do domestic chores.

The number of hours spent on schoolwork outside school hours has emerged as a significant predictor of completion of secondary education. For instance, compared to children who did not spend time in schoolwork after school:

- Children who spent one hour studying after school, are eight times more likely to complete secondary schooling;
- Children who spent two hours studying after school are 10 times more likely; and
- Children who spent three hours and more studying after school were over 16 times more likely to complete secondary education.

For purposes of policy, enforcement and campaigns, this analysis provides empirical evidence on the need for greater resources to support families so that children, particularly the younger ones, do not have to combine paid work with schooling. Furthermore, mechanisms for regulating the number of hours children are spending on domestic chores can ensure that they spend adequate time on studying during and after school hours and are not involved in gratuitous work.

Further in-depth analysis can be undertaken to examine teaching quality and student achievement, and capture children's experiences of schooling and work, both for wages and domestic work.

It is also necessary to examine the data to understand the type and nature of work and the conditions under which it is performed as some of it is likely to constitute child labour. The voices of children speak of conditions of work that would be child labour: use of pesticides, under-age work in extreme conditions including long hours and missing out on schooling.

About the authors

Renu Singh, PhD, works as Country Director for Young Lives India. With over 25 years of teaching experience in general and in special education in India and abroad, she is currently a Visiting Professor to Jamia Millia Islamia University.

Sherin R. Khan, ILO Senior Specialist on Child Labour, South Asia, with 30 years of international development experience, is based in the ILO's Decent Work Team for South Asia, New Delhi.

The responsibility for opinions expressed in articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them, or of any products, processes or geographical designations mentioned.

Abbreviations

AP	Andhra Pradesh
BBBP	<i>Beti bachao beti Padhao Yojana</i> , India – a special programme to educate and empower
BC, SC, ST	Backward Classes, Scheduled Caste and Scheduled Tribe –official social groupings recognized by the Constitution of India as historically disadvantaged. Other Castes are more privileged, socially and educationally advantaged classes.
CABE	Central Advisory Board of Education, India
CRC	UN Convention on the Rights of the Child
DHS	Demographic and Health Survey, India
DISE	District Information System for Education, India
DWT	ILO’s Decent Work Technical Support Team
ILO	International Labour Organization
ITDA	Integrated Tribal Development Agency
KGBV	Kasturba Gandhi Ballika Vidyalaya, India –a programme of residential schools at upper primary level for girls belonging predominantly to the SC, ST, OBC and minority communities
NGO	Non-governmental organization
NREGA	National Rural Employment Guarantee Act, India
NSS	National Sample Survey, India
NSSO	National Sample Survey Organization, India
OC	Other Caste - See reference above: BC - Backward Classes
R1	NSS-Round 1 – Young Lives survey in Andhra Pradesh (and Telangana)
R2	NSS-Round 2 – Young Lives survey in Andhra Pradesh (and Telangana)
R3	NSS-Round 3 – Young Lives survey in Andhra Pradesh (and Telangana)
R4	NSS-Round 4 – Young Lives survey in Andhra Pradesh (and Telangana)
RKSK	<i>Rashtriya Kishore Swasthya Karyakram</i> , India - health programme for adolescents, in the age group of 10-19 years, which would target their nutrition, reproductive health and substance abuse, among other issues
RMSA	<i>Rashtiya Madhyamik Shiksha Abhiyan</i> , India - secondary education of good quality available, accessible and affordable to all young persons in the age group 15-16 years
RTE Act	Right of Children to Free and Compulsory Education Act, 2009, India
SSA	<i>Sarva Shiksha Abhiyan</i> , India
YL	Young Lives India

1. Introduction

India has seen a tremendous spurt in school enrolment, particularly at the elementary level, due to efforts made by *Sarva Shiksha Abhiyaan* (SSA), as well as the recent legislation making education to be free and compulsory for children aged 6-14 years under the Right of Children to Free and Compulsory Education Act, 2009. Since 2001, the number of out-of-school children in the age group 6-14 years, has decreased from 32 million to 2.2 million in 2012-13 (MHRD, 2014). For over a decade, there has been strong advocacy by child rights activists to stop 6-14 year old children from working and to ensure that they benefit from the universal quality elementary education programmes.

In 2013, the ILO reported encouraging signs in the fight against child labour globally, but called for an accelerated pace of decline. It estimated that the number of child labourers in the age group of 5–14 to be 168 million in 2012, down from 246 million in 2000 (ILO, 2013). The Asia-Pacific region showed a decline from 114 million to 78 million for the 5-17 year age group, but it still continues to have the highest numbers of child labourers. In 2012, Sub-Saharan Africa, which has the highest incidence of child labour, showed 59 million, Latin America and the Caribbean (LAC) was estimated at 12.5 million and Middle East and North Africa (MENA) at 9.2 million.

A recent ILO South Asia report on child labour and children in employment (Khan and Lyon, 2015) states that according to conservative estimates, there are 16.7 million 5-17 year-olds engaged in child labour in South Asia and, of these 10.3 million are in the 5-14 year age range. In absolute terms, child labourers from 5-17 years of age number the highest in India (5.8 million), followed by Bangladesh (5.0 million), Pakistan (3.4 million) and Nepal (2.0 million).

1.1 What is child labour

According to the ILO, not all work done by children is categorized as child labour. Whether or not it is child labour depends on the age of the child, the types of work performed, the conditions under which it is performed and the national laws and regulations pursued by individual countries. Child labour refers to a subset of children's work that:¹

- is mentally, physically, socially or morally dangerous and harmful to children; and
- interferes with their schooling:
 - by depriving them of the opportunity to attend school;
 - by obliging them to leave school prematurely; or
 - by requiring them to attempt to combine school attendance with excessively long and heavy work.

¹ ILO Convention on Minimum Age to Employment, 1973 (No. 138) – the most comprehensive and authoritative international standard on child labour, requiring countries to set a minimum age for employment and establish a national policy, among other provisions.

In its worst forms, child labour encompasses:²

- all forms of slavery or practices similar to slavery, such as the sale and trafficking of children, debt bondage and serfdom, as well as forced or compulsory labour, including forced or compulsory recruitment of children for use in armed conflict;
- the use, procurement, or offering of a child for prostitution, for the production of pornography or for pornographic performances;
- the use, procurement, or offering of a child for illicit activities, in particular for the production and trafficking of drugs as defined in relevant international treaties
- work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children, such harmful work to be determined by national authorities.

Three main international conventions – the UN Convention on the Rights of the Child (CRC), ILO Convention on Minimum Age to Employment, 1973 (No. 138) and ILO Convention on the Worst Forms of Child Labour, 1999 (No. 182) – provide the main legal standards for child labour and a framework for action against it. Whether or not certain children’s work is considered child labour varies from country to country, as well as from sector to sector within countries.

Why children are pushed or opt to drop out of school and take up work before they have completed their elementary cycle of schooling is a critical question that confronts policy-makers and practitioners. Children manage school, home and farm work in complex ways (Morrow and Vennam 2010). Children in employment are generally less likely to attend school than their non-working peers (Khan and Lyon, 2015).

1.2 Children’s work in India – status and sector

India has made a number of important legal commitments in the area of child labour. The Constitution of India (26 January 1950), through various articles enshrined in the Fundamental Rights and the Directive Principles of State Policy, lays down that:

- No child below the age of 14 years shall be employed to work in any factory or mine or engaged in any other hazardous employment (Article 24).
- The State shall direct its policy towards securing that the health and strength of workers, men and women and the tender age of children are not abused and that they are not forced by economic necessity to enter vocations unsuited to their age and strength (Article 39-e).
- Children shall be given opportunities and facilities to develop in a healthy manner and in conditions of freedom and dignity and that childhood and youth shall be protected against moral and material abandonment (Article 39-f).
- The State shall endeavour to provide early childhood care and education for all children until they complete the age of six years. (Article 45).

India is a signatory to the ILO Forced Labour Convention (No. 29) and ILO Abolition of Forced Labour Convention (No. 105). Following the signing into law of The Child Labour (Prohibition and Regulation) Amendment Act, 2016 in July 2016, the Government is in the process of ratification of the two fundamental ILO conventions on child labour – [Convention on the Minimum Age to Employment, 1973 \(No. 138\)](#) and the [Convention on the Worst Forms of Child Labour, 1999 \(No. 182\)](#).

² ILO Convention on the Worst Forms of Child Labour, 1999 (No. 182).

Like many other South Asian countries, in India the largest share of children’s work is reported in unpaid family work in the agriculture sector. Over 56 per cent of working 7-14 year-olds and close to 52 per cent of working 15-17 year-olds are in the agricultural sector in India, followed by manufacturing for both age groups – about 27 per cent and 19 per cent respectively. For the older age group, construction also absorbs a large share (13 per cent). The report also draws attention to 54 per cent of the 7-14 year olds, and over 39 per cent of the 15-17 year olds being involved in unpaid family work. This presents a picture where children, even of legal working age, are highly likely to be working in unregulated and unprotected work (Khan and Lyon, 2015).

The picture is consistent with the global child labour scenario. According to the ILO, of the 168 million 5-17 year-old children engaged in child labour globally, close to 59 per cent are engaged in agriculture, and two-thirds of these (over 68 per cent) are unpaid family workers (ILO 2013).

1.3 Child labour estimates in India and Andhra Pradesh

Estimates from NSS (National Sample Survey) 68th round (2011-12) show that there are approximately 3.5 million child labourers across the country in the 5-14 age group. The recent Census figures shows a decrease in the number of child labourers in the age group 5-14 years from 12.6 million as listed in the 2001 Census data, to 4.3 as listed in the 2011 Census data.

Before it was divided in 2014, Andhra Pradesh was the fifth largest state in India, with a total population of 84.66 million and an average annual growth rate of 1.06 per cent over the last 10 years, the sixth lowest in the country (Census 2011). Adult literacy, a major indicator of poverty, improved, with a total literacy rate of 67.6 per cent in 2011 (75.6 per cent male literacy and 59.7 per cent female literacy) up from 60.5 per cent total adult literacy in 2001 (Census 2001; Census 2011). Andhra Pradesh is close to the all-India average on various measures of human development such as gross enrolment in primary school, literacy, and infant mortality, as well as on measures of service delivery such as teacher absence (Muralidharan and Sundaram 2011). It ranked nine out of 35 states in India on the Composite Educational Index (DISE 2010–11).

Table 1: Child labour estimates in India and undivided Andhra Pradesh (5-14 Years)

NSS Survey	Rural	Urban	All	Share of child labour (%)
2004-05				
India	7 445 000	152 500	9 075 000	100.0
Andhra Pradesh	1 052 000	140 000	1 201 000	13.2
2009-10				
India	4 238 372	745 499	4 983 871	100.0
Andhra Pradesh	198 347	36 315	234 662	4.7

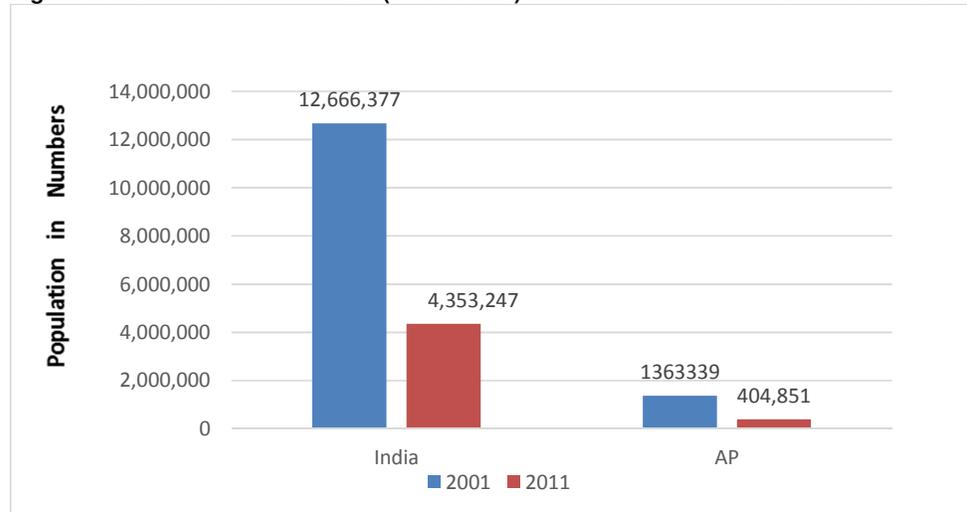
Note: Estimates based on key indicators of employment and unemployment in India
Source: NSS 2004-05 & NSSO 66th Round, 2009-10.

According to the National Sample Survey data, India’s child workforce during 2004-05 was estimated at just over nine million, declining to 4.9 million in 2009-10 survey round (*Refer Table 1*). As per the NSSO (2004-05), undivided Andhra Pradesh showed the highest incidence of children’s employment

among the Indian states – 13.2 per cent of the national share of child labour. In 2009-10, this decreased to less than 5 per cent of the national share, with the total number of child labour in 2009-10 being reduced to 0.23 million from 1.2 million in 2004-05, thereby indicating considerable reduction in child labour rates in Andhra Pradesh as well as India

Based on the latest Census data, in 2011-12 Andhra Pradesh had the seventh highest population of child labour in the country with 4.78 per cent of 5-14 years in child labour. Figure 1 provides Census figures for India and undivided Andhra Pradesh to capture incidence of child labour.

Figure 1: Incidence of child labour (5 - 14 Years) in India and undivided Andhra Pradesh



Source: Census of India, 2001 and 2011.

1.4 Scope of the paper

The intention of the paper is to understand the causal correlation between child labour at a younger age and secondary school completion.

While recognising the significance of quality of education and teaching quality in determining continuation of schooling and their contribution to it, the scope of this paper is focussed on examining completion of secondary education and its relationship to children’s work status at the age of 12 years. Given the impetus to secondary school completion by *Rashtriya Madhyamik Abhiyan* (RMSA), which aims to achieve near universal enrolment with Gross Enrolment Ratio (GER) at 90 per cent by 2017 (MHRD, 2009), it is important to understand this causal links between work status of children during the primary years of schooling and its impact on secondary school completion.

This paper focuses on longitudinal data which is related to children’s work and on their time use when children were 12 years old in 2006. It then looks at their educational and occupational outcomes as they turn 19 years of age in 2013-14. The children are the same at both ends in 2006 and 2013-14. The purpose is to understand the links between their work status in 2006 and their educational outcomes in 2013-14 and any causal relationship.

This paper looks at both market and non-market work for the children under study. Focus only on activities undertaken outside the child's household tends to overlook the large proportion of activities undertaken by children within their own home or other homes. Such non-market work is often not included in employment statistics, resulting in what can be large information and knowledge gaps. Girls are more likely than boys to be found engaged in such invisible. Basu et al. (2010), using data based on the Himalayan region of India, reports that, on average, children work about 3.8 hours a day when child labour is defined to include both market and non-market work. The non-market work turns out to be about four times greater than the average work-hours if only market labour is considered. This speaks to the importance of studying domestic non-market activities, together with the market activities.

In seeking a more in-depth and comprehensive understanding of the link between the 2006 work status and the 2013-14 educational outcomes, the paper uses information from the blending of mixed methods research, which draws on both quantitative and qualitative data. Young Lives longitudinal data and qualitative research draws on interviews conducted with children and their families in what is now Andhra Pradesh and Telangana States of India. The mixed method provided for a wide range and in-depth information that enabled more thorough analysis. The method was recognised as an effective way to 'bridge the schism between quantitative and qualitative data' (Onwuegbuzie and Leech, 2005).

This mixed methods paper attempts to study the causes and determinants of why children in undivided Andhra Pradesh opt out of schooling as they relate to labour and also analyses the type of work children are involved in both inside and outside their homes. The study also draws on the panel data to determine whether combining paid and unpaid work with schooling has had a detrimental effect on children's completion of their secondary education.

Section 2 deals with information about Young Lives methodology, Section 3 covers factors affecting continuation of schooling, Section 4 deals with types of work children are involved in as they grow older, Section 5 presents data related to children combining schooling and paid and unpaid work, Section 6 analyses longitudinal evidence linking work status at age of twelve years to their educational and occupational outcomes at age of 19 years. Section 7 provides recommendations.

2. Methodology

2.1 Data source

This paper is based on both quantitative and qualitative longitudinal data from studies conducted by Young Lives India, carried out in the state of undivided Andhra Pradesh³ since 2002. The sample consists of 1,000 children, with roughly equal numbers of boys and girls, who were randomly selected from 98 communities located in 20 urban and rural sites, situated across seven districts – Srikakulum, West Godavari, Cudappah, Anantpur, Mahbubnagar, Hyderabad, and Karimnagar (*Fig 2*). The sampling methodology adopted by the team in Andhra Pradesh is the surveillance system, consisting of a multi-stage, purposive, and random sampling to select the children. The sentinel site sampling included 15 rural sites distributed across the state plus five urban sites (including the capital, Hyderabad). Households were selected at random within a study site, while the sites themselves were identified on the basis of predetermined criteria, informed by the objectives of the study.⁴ Within each

³ Andhra Pradesh was divided into Telangana and Andhra Pradesh on June 2, 2014.

⁴ For more details on sampling rigour please refer to Technical Note 2 (Kumra, 2008)

sentinel site, 100 households with a child born in 2001–02 and 50 households with a child born in 1994–95 were selected randomly. Comparison with National Household Survey Data (DHS 1998/99) for Andhra Pradesh, indicates that the sample is broadly representative of the state (Kumra, 2008). Data was also collected through interviews with children and their families through four rounds of household surveys conducted in 2002, 2006, 2009 and 2013. The partition of Andhra Pradesh in 2014 has left the Young Lives sample distributed across three districts in Andhra Pradesh (Srikakulam, West Godavari and Cudappah) and four districts of Telangana (Karimnagar, Mahbubnagar, Anantpur and Hyderabad).

Figure 2: Map of undivided Andhra Pradesh with Young Lives study sites



Young Lives is not intended to be a nationally representative survey such as the Demographic and Health Survey (DHS). Rather, as a longitudinal study, it is intended to show changes over time in the lives of individuals and the impact of circumstances at an earlier point on subsequent outcomes for the children. However, comparisons of basic attributes and characteristics of the children in the samples to larger surveys have shown the selection to be reasonably representative of the children in the region/country (Dercon and Cooper, 2007).

The sample is pro-poor and the longitudinal nature of the study provides opportunities to gain insights into transitions across various phases of childhood. The longitudinal aspect of the study also provides the opportunity for analysing the socio-economic factors that could be contributing to or mitigating child poverty and its dynamics over time. At the time of analysis for this paper, four rounds of quantitative and qualitative data collection had been completed, with Round 5 of the household data collection being planned for 2016.

This paper examines the influence of children’s work at age 12 on later educational and occupational outcomes at age 19. Children’s occupations at age 12 have been derived using round 2 data (2006),

Source: <http://www.younglives.org.uk/publications/TN/assessment-young-lives-sampling-approach-india>

whereas round 4 data (2013) have been used to construct educational and occupational outcome at 19 years.

- Children’s educational outcomes have been categorised into: completion of secondary education, completion of higher secondary education, or failure to complete either.
- Occupational outcomes have been categorised as: not working, employed in agriculture (both self-employed and wage employed), or employed in non-agricultural activities (both self-employed and wage employed).

To initially examine any association between early work and later outcome, bivariate cross-tabulation was carried out. Then, to establish the effect of early work at age 12 on the educational outcome variable, a binary logistic regression analysis was carried out after controlling for selected background variables (Table 2). Finally, predicted probabilities derived from the logistic regression have been calculated to study the probability of completion of secondary education in relation to specific variables.

Table 2: List of background variables used in multivariate analysis

Variable	Description	Round
Gender	Male ^(Ref) = 1 Female = 2	R1
Birth order	First-born ^(Ref) = 1 Second-born = 2 Third-born = 3 Fourth and later = 4	R1
Father’s education	Below class 4 ^(Ref) = 0 Class 4–5= 1 Class 6–8= 2 Secondary and above = 3	R1
Mother’s education	Below Grade 4 ^(Ref) = 0 Class 4–5= 1 Class 6–8= 2 Secondary and Above = 3	R1
Wealth index tercile	Bottom ^(Ref) = 1 Middle = 2 Top = 3	R2
Hours spent on domestic chores	None ^(Ref) = 0 1 hour = 1 2 hours = 2 3 and more hours = 3	R2
Hours spent on studying outside school	None ^(Ref) = 0 1 hour = 1 2 hours = 2 3 and more hours = 3	R2
Paid work in last 12 months	No ^(Ref) = 0 Yes = 1	R2

Quantitative data is gathered through comprehensive surveys that include interviews with caregivers, parents, key community members in the selected communities (such as teachers, village elders or elected council representatives) and the children themselves.

Qualitative data is gathered from the children, who were approximately 8 years of age in the first round of surveys conducted in 2002. They have participated in interviews from the very first round and have

also been asked questions related to schooling, time use, well-being, and involvement in paid and unpaid work in each of the rounds. The child interviews provide unique insights into the children’s perceptions of wellbeing, social capital, participation in and feelings about school and work.

Data on households’ economic circumstances, livelihoods, assets and social capital is also collected in each round. The questionnaires also collect data relating to coping strategies, such as migration, parental education and other experiences, and the extent of use of services (e.g. healthcare, pre-school care or education programmes) by the children, their parents and caregivers. This enables creating a detailed picture of children’s experiences and well-being linked to information about their households and communities.

Data on children’s work and education comes from two components of the survey: a set of questions asking children about the amount of time spent on various tasks in a ‘typical day’ in the week preceding the survey and whether children have done any paid work in the previous 12 months, as well as the educational history gathered from the children to determine grade completion. The analysis takes into account paid work on a typical day, paid or unpaid work for the household (such as farm labour, but excluding domestic chores), and doing any paid work in the previous 12 months, as well as school attendance and grade completion data.

For the purpose of this paper, the children are of an age that enables the analysis of the correlation of economic activities undertaken by children as they turn 19 years of age in Round 4 conducted in 2013. Analysis also is done of children in full-time education as well as those combining school and work and in full time paid and unpaid work at home and on their farms. Out of 1,008 children aged 8 years or older initially interviewed in Andhra Pradesh in 2002, 994 were re-interviewed in 2006, 975 were interviewed in 2009-10, and 952 in 2013. Overall, attrition by 2013 (Round 4) was 3.4 per cent over the 11-year period.

Table 3 provides details of the various studies undertaken by Young Lives related to both quantitative as well as qualitative research and the age of the children during these surveys.

Table 3: Survey dates and ages of Young Lives sample children

Measure	Year	Older cohort age (yrs)
Round 1 survey	2002	7–8
Round 2 survey	2006/2007	11–12
Qualitative Round 1	2007	12–13
Qualitative Round 2	2008	13–14
Round 3 survey	2009	14–15
Qualitative Round 3	2010	15–16
Round 4 survey	2013	19–20

Source: Young Lives, Round 3 Report

2.2 Qualitative sub-sample research

The qualitative research conducted with a sub-sample of the original set of children is a major feature of the Young Lives study, and draws on a range of qualitative and participatory methods to understand the diverse aspirations and experiences of children from different geographical, socio-economic, and cultural backgrounds. Qualitative data collection was carried out with a sub-sample of the children, as well as members of their families and communities in 2007, 2008, 2010 and 2014. Another sub-study focusing on children's work in agriculture was undertaken in 2011. The methods employed for the qualitative research includes individual interviews, group interviews, participatory exercises, as well as semi-structured observations for context analysis.

The qualitative research component is premised on the notion that children are social actors in their own right, capable of providing essential information about the way in which poverty impacts upon their lives and well-being. Children's own understandings and perspectives serve as a major component of the qualitative data, along with the views of key adults in their lives. The aim has been to produce a series of longitudinal case studies that provide detailed and grounded descriptions of children's lives and the dynamic processes that underlie their life trajectories in ways that will complement the survey data analysis in order to inform policy and communications work. The research investigates the interaction of resources, capabilities, structural forces, and children's agency, and focuses on the meanings children and caregivers give to their actions and experiences in the context of the opportunities and constraints that shape their lives.

Voices of children regarding children's work are drawn mainly from a qualitative sub-study conducted in 2011 in two rural sites. The individual and group interviews focused on exploring the perspectives of children and community members, and experiences of children's work, time use and responsibilities, managing school and work, and risks in stopping children from work.

3. Schooling and child labour linkages

3.1 Decreasing enrolment across time

Young Lives data shows declining enrolment trends as children grow older. Though 98 per cent of the children were enrolled in schools at age eight, this decreased to 90 per cent in Round 2, 77 per cent by Round 3, when the children were aged 14-15 years and a low 48 per cent by the time the children turned 19 years of age (Table 4). At age eight almost all children were sent to school, irrespective of their gender, caste and household wealth. However, substantial gender and urban-rural gaps begin to appear by age 12 years and gender-based discrimination is increasingly evident by the age of 15 years, with a quarter of the girls no longer in school in Round 3.

This data is substantiated by other research undertaken for Andhra Pradesh for the period 1996-1997 to 2005-2006 (Vinayak, 2006). To illustrate the magnitude of the problem of dropout, the study using District Information System for Education (DISE) data traced the progress of the cohort of 2.49 million children that joined school Class 1 in the 1996-1997, until they reached Class 10. Of this cohort, only 1.45 million children reached Class 5 in 2000-2001, and only 0.9 million reached Class 10. The study further confirmed that the crucial grades in which children are pushed out are Class 5 and Class 7 – i.e. when children move from one school to the next (Vinayak, 2006). Analysing data of National Sample

Survey, Round 68 of 2011-12 ILO estimates 12 million 7-14 year olds as being out of school in 2012 in India. Children’s involvement in schooling is highest at 9 years and thereafter it decreases as involvement in work increases as children grow older, between 15-17 years. This is the period when the adolescents transition from school to work and their productivity increases, together with the opportunity cost of their being in school (Khan and Lyon, 2015).

In the case of Young Lives, Table 4 shows clearly the decrease in school retention rates during adolescence. While the drop-out rate between the ages of 12-15 years was 12.4 per cent, this had more than doubled to 28.4 per cent between the ages of 15 and 19 years. It is increasingly evident from the data that transition rates from elementary to secondary school and senior secondary school is not satisfactory.

The Central Advisory Board of Education (CABE) Committee Report (2005) highlights that ‘universal secondary education is a pre-condition for equitable social development, widening participation in India’s democratic functioning, building up of an enlightened secular republic, and [India being] globally competitive’ (p.14). According to XII Plan working group document, the Gross Enrolment Ratio in 2007-08 was 58.2 for grades nine and ten and 33.4 for classes 11 and 12 (Planning Commission, 2012), while National Family Health Survey (2007) claimed that only 54 per cent of all children at the secondary school age (11-17 year) were attending school. Thus transition and completion of secondary education continues to pose a huge challenge for India, particularly for socially and economically disadvantaged groups of children. A World Bank report (2009) mentions that access to secondary education in India is highly unequal, with a 40 percentage point gap in secondary enrolment rates between students from the highest and lowest expenditure quintile groups (70 per cent versus 30 per cent enrolment, respectively).

Table 4: Enrolment and dropout

	R1 age 8 (2002)	R2 age 12 (2006)	R3 age 15 (2009)	R4 age 19 (2013)	Drop out: R2 to R3 (12-15 yrs)	Drop out: R3 to R4 (15-19 yrs)
Male	98.3	90.8	80.8	56.22	10.0	24.58
Female	97.4	88.8	73.9	41.77	14.8	32.13
Urban	98.3	95.1	84.7	63.56	10.4	21.14
Rural	97.7	87.9	74.8	44.29	13.1	30.51
Scheduled Castes	98.5	86.2	74.7	39.71	11.4	34.99
Scheduled Tribes	96.2	88.3	76.0	50.00	12.3	26.00
Backward Classes	97.8	88.8	75.6	45.33	13.2	30.27
Other Castes	98.1	96.0	85.0	65.02	11.0	19.98
Total	97.8	89.8	77.3	48.84	12.4	28.46

Source: Young Lives, Rounds 1, 2, 3 and 4

The Young Lives data points to caste-based gaps in enrolment as children grow older, with only about 75 per cent of Backward Class, Scheduled Castes and Scheduled Tribes⁵ children still enrolled at age 14-15 years as against 85 per cent of Other Castes. This gap between enrolment of Other Castes and

⁵ Scheduled Tribes (ST), Scheduled Castes (SC), and Backward Classes (BC) are official groupings recognised in the Constitution of India as historically disadvantaged. Other Castes (OC) are more privileged and socially and educationally advantaged class.

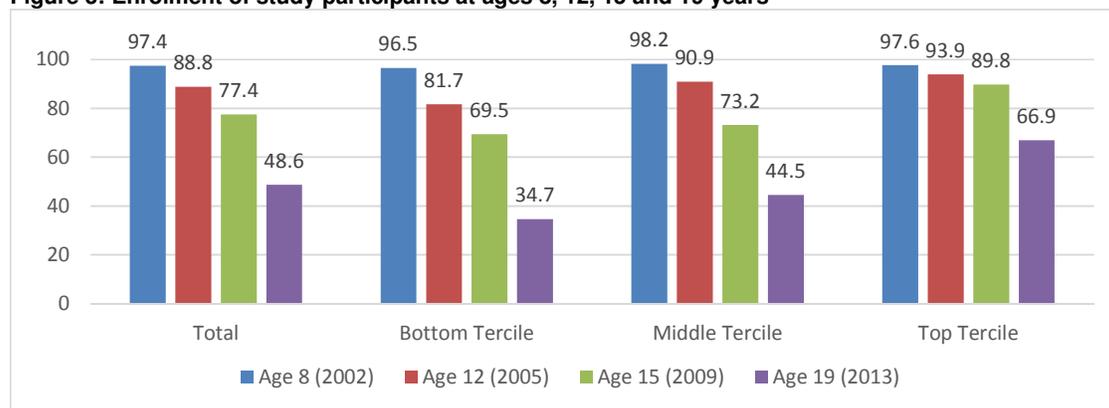
Scheduled Castes is further increased to 15 percentage points by the time the children turn 19 years of age. Growing older, the most disadvantaged children are girls, children in rural areas and those of Scheduled Castes. This inequality in education is also evident in the drop-out rate between Rounds 2 and 3, which was almost doubled for children from the Scheduled Castes and Scheduled Tribes.

3.2 Factors leading to discontinuation of schooling

An analysis of literature highlights a number of factors that influence an adolescent’s decision to continue or dropout of school (Rumberger and Lim, 2008). Factors that push children out of school go beyond the student’s personal attributes and are largely related to the school itself. Among these factors are school size, teaching quality, discrimination and cost of schooling. On the other, factors that work to pull children out of school are related to the children’s homes and families. Among these are factors such as family size, poverty, loans taken by family that need to be paid off, home and care related responsibilities. Both sets of factors are important, however the scope of this paper is limited and does not analyse school quality and delivery related factors.

At age 19 years (Round 4 survey), less than 50 per cent of the sample were continuing in education, with 15 per cent more boys than girls still studying. Inequity based on wealth status of families is evident from *Fig 4*, with only one out of every three children from the poorest families still in education at age 19 as against two out of every three belonging to the less poor households. This may well be because households with better income may allow parents to provide more resources to support their children’s education, including access to better quality schools, after-school support services, adequate time for study, rest and leisure, and an in-home environment that is conducive to learning.

Figure 3: Enrolment of study participants at ages 8, 12, 15 and 19 years



Source: Young Lives, Rounds 1, 2, 3 and 4

Detailed interviews conducted with the children and their parents during the qualitative research exercise highlighted various circumstances that cause children to stop schooling and take up full-time work. All names of children used in the qualitative interviews are pseudonyms to protect children’s identities.

Box 1

Padmaja⁶ (pseudonym), a rural girl studying in class ten, is the only one of the three siblings continuing her education. She feels very sorry for those who have had to discontinue their education in her village due to financial problems as well as lack of hostels* since the school in the area offers only up to fifth class. According to Padmaja, “that is why they dropped out; some have dropped out as they had no money... or due to their poor economic condition... others dropped out as they did not value education.”

Note: * In Indian education, boarding arrangements are often necessary. The facilities to house students are called hostels.
Source: Young Lives Interviews, 2013.

During interviews and group exercises conducted as part of the qualitative studies, girls reported that distance to school, inadequate transport and lack of basic amenities like toilets at school are reasons why older girls drop out of school. These are well-established and reported factors, and sit within a wider context of gender-based differences and inequalities between women and men in adulthood (leading to different expectations as to how long boys and girls will stay in school). What also emerges from the data are the difficulties adolescent girls face in making use of the services provided to promote education among them. For example, free bus passes are provided by the government for all girls attending high school more than two kilometres from their home, but it is not always easy for the girls to avail the free service as noted in the case below.

Box 2

Vasudha, who dropped out of school after class seven in the local upper primary school recalled her experience: “The drivers do not stop the buses. The conductors (drivers’ assistants) do not allow us on, and when they do, we are treated badly and our bags get thrown off the bus, because we travel for free without paying.”

Source: Young Lives Interviews, 2013.

3.2.1 Costs related to schooling

Difficulties associated with rising cost of education, particularly private school education, are also highlighted by the data. Choice of school is increasingly based on wealth, social status and gender. The sudden increase in enrolment in private low-fee charging schools is a recent phenomenon across the country, including in Andhra Pradesh. Data shows that almost 37 per cent of children aged 14-15 years in 2009 were enrolled in private schools. This would also result in a large number of parents having to bear a much higher cost burden. Children from the top wealth quartile were five times more likely to be enrolled in private schools at elementary level and ten times more likely to be enrolled at the secondary level, as compared to children from the poorest quartile. Significantly, in the top wealth quartile, 71 per cent of the older cohort were attending private school, rates that are more than five times

⁶ All names of children and names of research sites are pseudonyms, to protect respondent’s identity. Some quotes may be slightly edited for reasons of making them clear.

those amongst the poorest quartile at primary level and ten times at secondary level (Singh and Bangay, 2014).

Based on Round 2 (2006) longitudinal data, Himaz (2009) highlighted that educational expenditure per child takes up 6.5 per cent of the monthly household expenses, of which roughly 37 per cent spent on books, 26 per cent spent on school fees, 24 per cent spent on uniforms, six per cent on tuitions⁷ and five per cent on transportation.

In Round 3 (2009) an analysis of household expenditure across various educational components such as fees, uniform, books and transport for all children aged 5-17 years, shows that for households sending children to private schools, 7.5 per cent of their yearly per capita household expenditure is on education, as against 2.7 per cent of total household expenditure for those sending children to government schools (Singh and Bangay, 2014). Although government schools offer free elementary schooling, parents spend money on after-school tuitions. Singh and Bangay (2014) drew attention to the fact that costs incurred for a primary school child enrolled in private school are some 38 times more than those going to government schools, whereas at secondary level the differential in cost was over 18 times more in private schools as compared to government schools. This is because primary schooling in public schools is free, but fees are charged in secondary public schools.

Many of the interviews with children highlight the difficulties families and children face as a result of costs related to schooling.

Box 3

Govindh (pseudonym) resided in a hostel till class ten and was keen to get a seat in the polytechnic in class 11 (senior secondary/junior college). However, he was disappointed at not being able to realize his aspirations. He explains that he went to Visakapatnam to join a private junior college and was ready to pay fees, but other expenditures like room, food, education expenditure were high for him. Govindh recalls his disappointment as a very sad moment in his life when his parents informed him that they would not be able to afford the expenses. He then joined a nearby government institution, combining schooling with work on the farm (not his own). Govindh informed that like all other children in his area from Backward Class and Scheduled Caste he attends junior college in the afternoon and works in the morning.

Source: Young Lives Interviews, 2013.

Spiralling household expenditure on children's schooling as they move into higher classes at school is a challenge to cope with for poor families and those with low incomes. Yet, parents with strong aspirations for their children for lives better than their own and convinced of the value of education in making that happen turn to loans to put their children through private schools.

Enrolment in private schools by the low-income families has a gender dimension to it. Although the enrolment of girls in private schools from families who are less poor has increased, many more boys than girls from such families are enrolled in private schools.

⁷ Tuitions are extra-curricular classes that act as supplemental instruction, and are often necessary to pass exams for grade advancement in India.

Box 4

Sharing her thinking and hopes and those of her husband's, one mother explained: "loans will remain pending... interest on them will increase, but my husband says that even if we don't have to eat, he wants to educate (the children). We remained illiterate, if they (children) study well, they will become well to-do."

Source: Young Lives Interviews, 2013.

3.2.2 Child marriage

Child marriage is yet another reason for girls to stop their education and it continues to be widespread in India, with one third of all child brides globally being in India (UNICEF, 2014). According to District Level Household and Facility Survey (DLHS, 2007-08), almost 52 per cent women in Andhra Pradesh in age group 20-24 years reported that they were married before reaching 18 years of age (IIPS, 2010). *Table 5* shows that in Round 4 survey (2013) more than a third of the girls aged 19 years participating in Young Lives longitudinal survey were already married, whereas only nine boys (less than two per cent) were married at 19 years. One out of every five married girls was a mother by 19 years of age. The mean age of marriage of girls was 16.6 years and 25 per cent of the girls were married before the age of 18 years, the legal age of marriage for girls in India.

Table 5: Marriage and fertility at age 19 years

Status	Boys	Boys (%)	Girls	Girls (%)
Single (never married)	456	98.1	308	63.2
Married or cohabiting*	9	1.9	174	35.7
Widowed, divorced or separated	0	0.0	5	1.0
Total	465		487	
Has had a child	6	1.3	102	20.9

* Only one young man was living with his partner, not yet married.
Source: Young Lives, Round 4, 2013

There are various reasons for the continued practice of child marriage, seeking causation for the same is beyond the scope of this paper. However, the data shows that the girls most likely to have married and have given birth at a young age were from the poorest groups and their marriage at that young an age would have affected their education status. Data shows that 21 per cent of the married girls already had children by the age of 19 years. The majority of the married girls had left school, more than half of them had only completed primary level education, while only 21 per cent had completed secondary school.

Box 5

Devi Sri, a 17-year old girl from the Backward Caste, combined work and studies since her seventh class. Her older brother and sister were married and has a younger brother. Devi Sri was married after completing ninth class and says that most of her classmates were also married. She informs that her first job was flower harvesting and she worked at it over weekends and holidays. Later she began to work in paddy harvesting and also washing clothes (the latter being main household occupation). She said her father believed that children should not do 'hard work', but her mother felt 'that we were poor and used to send us (Devi Sri and her sister) for work to make as much money as we can...even though it was difficult.' She believes that the work she undertook did not affect her studies as she continued to score good marks. Her father sold off the cattle they owned to cover the cost related to her marriage and then sold off the sheep for her sister's marriage. 'We are left with nothing, we don't have farms or anything' said Devi Sri. After marriage, Devi Sri lives in a joint family home, with ten members and helps in household chores such as cleaning utensils and feeding animals. She feels bad that she married early, but is happy that her mother-in-law treats her 'like her own daughter'.

Source: Young Lives interviews, 2013.

Morrow and Vennam (2012) drawing from Young Lives sample in two districts of Andhra Pradesh reported that work was seen as beneficial as a form of education in itself, because children learn work skills that they will need when they marry. As one of the girls reported 'after (girls) get married, the work learned here (in parents' home) will come in very useful and if they go there without these skills, it would be very disadvantageous.'

According to the ILO, not all work that children perform is child labour. If work done by children is safe in nature, performed in occupationally and otherwise safe settings, at the right age and does not affect the children's or adolescents' health, personal development and schooling, it can contribute to their development and skilling and to their families welfare. Child labour, a subset of children's work or employment, is harmful. It is work performed by children below the appropriate legal minimum working age; work that is dangerous and harmful – whether physically, mentally, socially or morally – for the children, and interferes with their schooling (ILO standards on child labour, the ILO Minimum Age Convention, 1973 (No. 138)), or work that is defined by Worst Form of Child Labour Convention, 1999, (No. 182).⁸

Box 6

Mohan, a 16-year old boy from the Backward Class, left school in ninth class at the age of 15 years. His father had high aspirations for Mohan and wanted him to study well, but brought him back home from the hostel, when Mohan did not clear his exams. The father complains that "Mohan never studied there, then I told him to study in our village, but here also he used to go in the morning and in the afternoon he would be truant, I told him he cannot lead his life like this and took him with me for mason and cultivation work." Mohan's stepmother suggested that Mohan should continue his studies through night school, but she says he is not interested in education. The two older daughters were married but the father is keen to educate his youngest daughter, who in seventh class, is good in studies and residing in a hostel. He says 'If she says she wants to study further I will spend the money and will make sure she fulfils her wish.' On the other hand the stepmother feels that the daughter should only continue studies till tenth class and then get married. She says "whatever she may study, she can't escape from washing vessels."

Source: Young Lives interviews, 2013.

⁸ <http://www.ilo.org/ipecc/facts/lang--en/index.htm> (accessed August 2016).

3.2.3 Gender discrimination

During Young Lives qualitative surveys, the elders highlighted that children were meted different treatment based on whether they were school going, working, and/or non-working (*poramboku*) children.

Boys were found to be combining secondary schooling and work.

Box 7

Prasad, a 16-year old boy from the Backward Class studying physics-chemistry-biology in higher secondary school, is aspiring to become a doctor, but fears that it may not be possible because he does not have the money. He worked in the fields (gathering coriander/ground nuts) to contribute towards the payment of junior college (higher secondary) fees. His mother says she would really like to support his education, but has to first pay off a loan of Indian rupees 20,000/- that the family has already incurred. They sold off a cow in 2005-06, because of financial difficulties.

Source: Young Lives Interviews, 2013.

The data shows that both girls and boys from the poorest households, were exposed to similar types of work but girls are doubly disadvantaged because of society's prejudices and views on the role of women and girls. Preference for educating sons – since girls 'go into another home', dowry related expenditure, early marriage and poor inheritance practices put girls at additional disadvantage. Among other factors that limit girls' educational opportunities are: distance to school, since longer distances are seen to put the girls' security at risk; the provision of relevant curricula sensitive to their needs and aspirations; school infrastructure that does not provide separate facilities for girls or presence of female teachers may keep some girls away from school for cultural or religious reasons. These and other problems often deprive millions of girls of an education (Bhat, 2010).

3.3 Parental aspirations

Sud (2010) in a study conducted in Punjab, India found that 76 per cent of parents indicated that they would do whatever necessary to ensure that their children continue to study 'as far as he/she is capable' even if it meant financial hardship for the family. However, when probed further, 'at least to Class 10' was the most common response for most parents.

The focus group discussions held with caregivers in the Andhra Pradesh longitudinal study, revealed that most parents would like their children to go into paid work only after 15-16 years of age. However, they conceded that in certain poor and socially disadvantaged communities children were being sent to paid work as early as 10 years of age. They also pointed out that in their childhood only those who were skilled used to do paid work, but now since work is more readily available (for example under the national rural programme that guarantees employment in certain circumstances), children go for paid work without telling their parents. The parents said they were aware that the situation would differ from village to village and from caste to caste.

4. Children's time use and work status

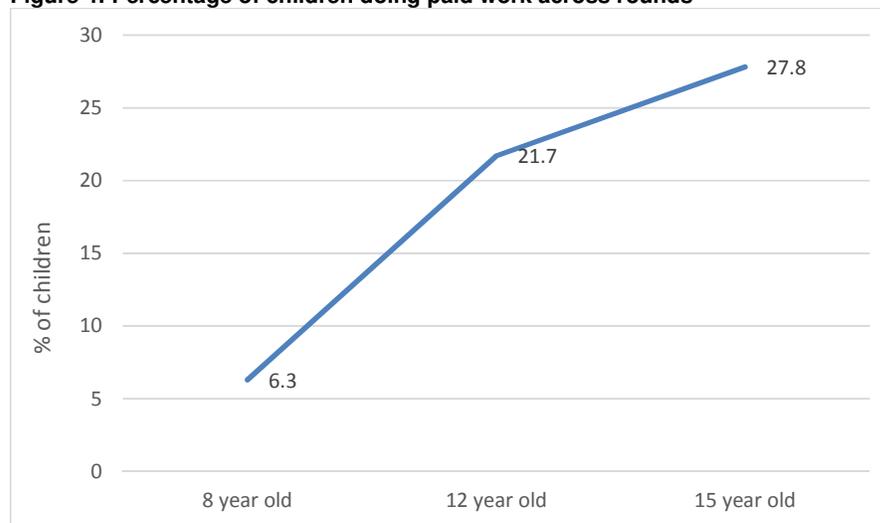
Unlike cross sectional studies, Young Lives is in an advantageous position to determine the kind of work children have been involved in while growing up, between the ages of 8 and 19 years. Most children belonging to poor households have to do some household work and for many of them work is an important means by which they learn new skills and develop self-reliance and self-esteem. However, depending on age of the child and minimum age for employment in the country, the type of work, the conditions under which it is performed and the national laws and regulations pursued by individual countries, some of this work can be termed child labour under national laws and international treaties, including the Conventions of the International Labour Organization. This section reviews paid work and time use of the Older Cohort in Rounds 1-3 (at the age of 8, 12 and 14-15 years respectively) as applicable under the laws and conditions of Andhra Pradesh and India.

4.1 Paid work

The paper first analyses data based on paid work reported by children in the past year and then it analyse how many children combined school and work - both paid as well as unpaid activities (such as work on family farms) and household chores at the ages of 7-8, 11-12 and 14-15.

Figure 5 provides indicative patterns of increase in paid work i.e. economic activities outside their homes as children grow older. Among the Older Cohort, the percentage working for pay had risen from 6 per cent in Round 1 (2002, age 7-8) to 22 per cent in Round 2 (2006, age 11-12) and further to 28 per cent in 2009 at ages 14-15. It is important to note that many of these children involved in paid work, were also combining school and work, as analysed in the next section. The trend of lower school attendance and higher employment as children grow older is consistent with the ILO's analysis (Khan and Lyon, 2015).

Figure 4: Percentage of children doing paid work across rounds



Source: Young Lives, Round 1, 2 and 3

Table 6, highlights that by age 15 years, within rural areas, a third of the Older Cohort children were working for wages, compared to only 12 per cent in urban areas. The 21 per cent difference in child labour incidence remained constant even at the age of 12 years i.e. Round 2 survey and this pattern was similar in the previous round). The incidence of children working for pay was highest by Round 3 among the Scheduled Tribes and Scheduled Castes.

Surprisingly more girls were found to be participating in child labour at the age of eight years, though the difference is small (1.7 per cent), but there seems to be a sudden increase in boys joining paid work by the age of 12 years (7 percentage points more than girls), with slightly more boys (29 per cent) were working than girls (27 per cent) at the age of 15 years. In short, the incidence of boys working for wages increasing more sharply than that reported by girls between the ages of eight and 12 years old (Round 1 and Round 2), with girls catching up and reporting a faster increase in work between the ages of 12 and 15 (Round 2 and Round 3), thereby narrowing the gap. Not surprisingly, children belonging to the poorest households reported higher incidence of working (35 per cent) than children belonging to least-poor households (27 per cent) at age 15 as well as at age 12 years. Consumption data was not collected for Round 1 (2002), it cannot be estimated as to which households were poor in 2002 on a consistent measure.

Table 6: Children who report working for wages (R1–R3, %)

	R1 Age 8	R2 Age 12	R3 Age 15
Boys	5.4	25.1	28.7
Girls	7.1	18.5	27.0
Urban	6.8	6.1	12.1
Rural	6.1	27.0	33.1
Poorest	–	30.1	34.6
Least poor	–	19.2	26.7
Scheduled Castes	5.4	22.8	40.0
Scheduled Tribes	17.9	35.7	41.7
Backward Classes	5.7	23.2	26.0
Other Castes	2.4	10.5	12.3
Maternal education: no education	6.8	29.9	38.6
Maternal education: up to 5 years	4.0	11.9	15.34
Maternal education: 5 to 10 years	7.2	10.0	9.58
Maternal education: more than 10 years	4.8	0.0	0.0
Total	6.2	21.7	27.8

Source: Young Lives Report, Round 3

The determinants of child work were analysed intensively by Krutikova (2009) using Young Lives survey data from Round 2. She documented that child work often increased in response to income shocks, was very sensitive to household gender and age composition, and that in urban areas it also varied according to the bargaining power of women.

Rounds 3 and 4 data is used for determining completion of secondary and senior secondary education and to examine changing patterns of children in full-time education, full-time paid work and those combining school and work, as they grow older. The data also is used for analysis of activities undertaken by the children, as well as to try to understand the characteristics of the child, household and context that could influence the likelihood of the child being involved in these activities. The qualitative data is used to further inform and provide in-depth understanding of context and familial

circumstances that drive children into full-time paid work or continue with education and to explore how children balance work and school.

5. Activities at age 12 and 15 years for children no longer in school

The 2006 survey data showed that 26 per cent of the Older Cohort children in rural areas reported that they were already working for wages, at least part-time (Galab et al. 2008). In Round 2 qualitative survey conducted in 2008, five of the 24 sample children had already dropped out of school. This number subsequently increased to nine by Round 3 Qualitative survey, by the time children were aged 15. Most of the other sub-sample children reported combining work on family farms with school attendance.

Figure 5a: Type of work activities undertaken by children no longer in school in Round 2 (%)

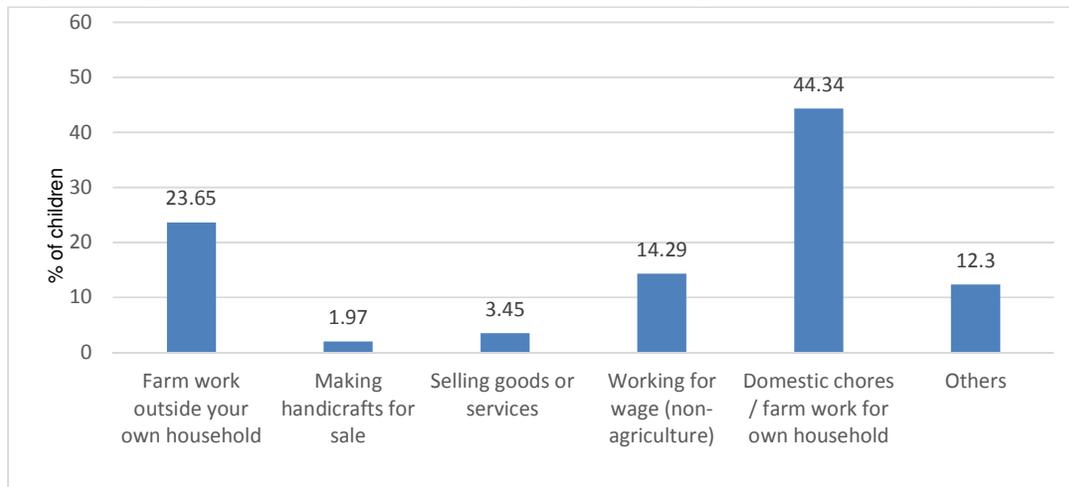
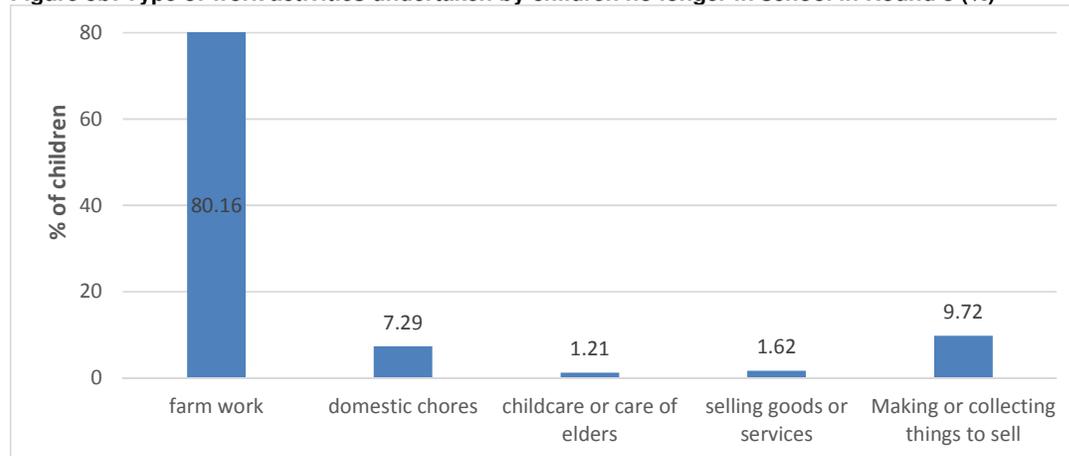


Figure 5b: Type of work activities undertaken by children no longer in school in Round 3 (%)



Note: 'Farm work' in Round 3 (14-15 year old) includes farm work outside household as well as within own household. However, in round 2 (for 11-12 year old) two separate options have been given to differentiate farm work outside household and for own household.

Comparing work activities (unpaid and paid) of children aged 11-12 and 14-15 years who were no longer in school, shows clear trajectories of children moving from helping in household chores to working for wages at 15 years. While 43 per cent helped in farm and domestic chores at age 12 (Figure 5a), by age 14-15 years, 80 per cent were working on farms for both paid and unpaid work, on their own farms and farms of others as well (Figure 5b).

5.1 How children spend their time

By the age of 15 years the difference in the way children spend their time is clear. Only 78 per cent are still attending school and there are variations in the types and amount of work they do by urban/rural location, socio-economic status, and caste. *Table 7* captures time use of children based on tasks undertaken in the past twenty-four hours at various ages. The data supports the evolution to increasingly gendered tasks as children grow older, with girls spending significantly more time doing domestic chores and caring for other family members, at ages of 12, 15 and 19 years (average of 1.6, 2.5 and 3.9 hours per day respectively). At the same time, girls spent significantly less time on studies at the age of 12 and 15 (*Table 7*). Although the trend is less significant ($p < 0.1$ in the t-test), the data also suggests that they spend less time at leisure. Boys spent significantly more time in school and studying after school at age of 12 and 15 while they spent significantly more time on paid work than girls at 19 years of age. This demonstrates how boys and girls are pushed into gendered roles, with girls being at a disadvantage in studying after school and having to spend many hours in caring and domestic chores.

Table 7: Time use comparison of boys and girls at age 12, 15 and 19 years

Time in hours on Various Activities	12 years	15 years	19 years
Boys (time in hours)			
Sleeping	8.92	8.30	8.11
Caring for others/Domestic chores	0.84	0.97	1.25
Working in family farm	0.39	0.51	1.24
Paid work	0.39	1.08	2.90***
At school	6.06	6.74***	2.89 ***
Studying (after school)	1.98**	2.12**	1.24
Leisure	4.07***	4.26**	5.00
Girls (time in hours)			
Sleeping	8.92	8.26	8.37
Caring for others/Domestic chores	1.66***	2.46***	3.98***
Working in family farm	0.21**	0.48	0.96
Paid work	0.40	1.00	1.31
At school	6.16	6.05	1.31
Studying	1.84	1.91	1.13
Leisure	3.51	3.95	5.07

** Significant at 5% *** Significant at 10%

Note: A t-test has been done to test the significant differences in time used by boys and girls at a particular age. These figures are averages for those children who report having spent time on the task.

There are various social, demographic as well as familial circumstances that affect young people living in poor households, who report spending more time on paid work than those in non-poor households.

Box 8

Bhavana, living in the rural mandal Katur in Rayalseema region is a 15 year-old girl from a Backward Class. Her father had died six years ago after falling in a drunken state on a stone. She is the youngest and has three older brothers. Two of the brothers did not go to school, while the third attended school until the fourth class. Bhavana left school after second class. She explains that she left school as she had to accompany her family on their seasonal migration for construction work to Mumbai. At the time of the interview, she was involved in agricultural work, like removing the groundnut plants and working in the paddy fields. She also attended to masonry work, she said. Bhavana complained about the groundnut harvesting, saying it was difficult and she ended getting blisters on her palms, as a result of which "... even eating food became difficult." Bhavana said she attended to both household work and paid work. She also complained about having to wake up very early to cook food for the large number of people in the household. She added: "... it is very difficult. When I was going to school, I was only sweeping the house premises... now I have to do all work... it was good when I was going to school." Bhavana's mother is keen to get Bhavana married, but worries about getting the money needed to give to the boy's family as dowry.

Source: Young Lives interviews, 2013

5.2 Children's voices

Qualitative interviews and the group exercises carried out in 2008 with children then aged around 12-13, also mirror the survey data and demonstrate that most of the children were engaged in household activities, although these were distinctly different for boys and girls. While the girls are engaged in household tasks inside the home (washing-up, cleaning, laundry, cooking and fetching water) boys are more likely to be engaged in tasks outside (fetching water, getting provisions, and so on).

Box 9

In Round 2, 12 year-old Ramya is one of five children (four girls and a boy) from a better-off family which owns land, but which also has a debt connected with the marriage of two of her sisters. She is expected to work on the land, demonstrating that work is not always directly caused by poverty, but also the need to provide labour within the household to work on family land, and the pressures that family debt may place on households. Describing her experiences of combining school and work, Ramya says: "I try to read, but I feel tired. I miss school, so I don't know what is happening at school." Ramya also finds the work hard and tiring; "It is very hard ... there is pain in my legs. We walk a long way... we have to do the same work every day, even if it is hot. At that time I cover my head with a towel. Sometimes I get a fever, but mostly it is only my hands and legs that ache. I feel tired after a long day, and do not feel like doing anything when I get home, not even studying." Her father is too busy and cannot help her with homework. Her mother understands her problems with work: "If I say I don't like to go to the fields every day she [her mother] understands and does not force me. If I want to go to school, she lets me... but she doesn't let me go (to school) during the cotton harvest."

Source: Young Lives interviews, 2013

The children ranked their daily activities through a group exercise. The ranking showed that amongst the activities, they liked school the most, followed by domestic tasks. Farm work was disliked by most

of the children. Children from households who had some land were also required to work on the family farm during the peak agricultural season, which affected the time spent in school. Children were required to juggle school, home and farm work for two to three months a year (from the end of August to November). Unable to strike a balance between the different forms of work, some children missed school and then found it difficult to continue attending.

Children who have left school at an early age are burdened with workload at home and struggle with work that can be extremely difficult resulting in physical pain and illness.

Not only does this show the seasonal pressures on children, but it also shows that children may be formally enrolled in school and yet missing considerable instruction. Existing government and NGO services are geared towards the needs of children who have dropped out of school, but children who miss school for a specific period because of seasonal agricultural also need attention from policy-makers (Vennam and Komanduri 2009).

5.2.1 Balancing school and work: children’s perceptions and experiences

The data provides details of school enrolment, as well as information about paid and unpaid work in each of the survey rounds. Children are further categorized at age 11-12 into five mutually exclusive groups i.e. (1) children with paid work and also went to school, (2) children with only paid work, (3) children with unpaid work and also went to school, (4) children with only unpaid work and (5) children in full-time education.

As the Young Lives data is based on the detailed questionnaire, it is able to identify the work that these children are involved in, whether on the farm or in the household. This reduces the chances of listing them as ‘idle’- which is the case when many of the categories of occupations are not captured in the data.

Figure 6 shows the different work status of 952 children. While only a quarter of the children were in full time education at age 12, almost 62 per cent were combining school and unpaid work.

Figure 6: Occupation status of children of age 12 (Round 2)

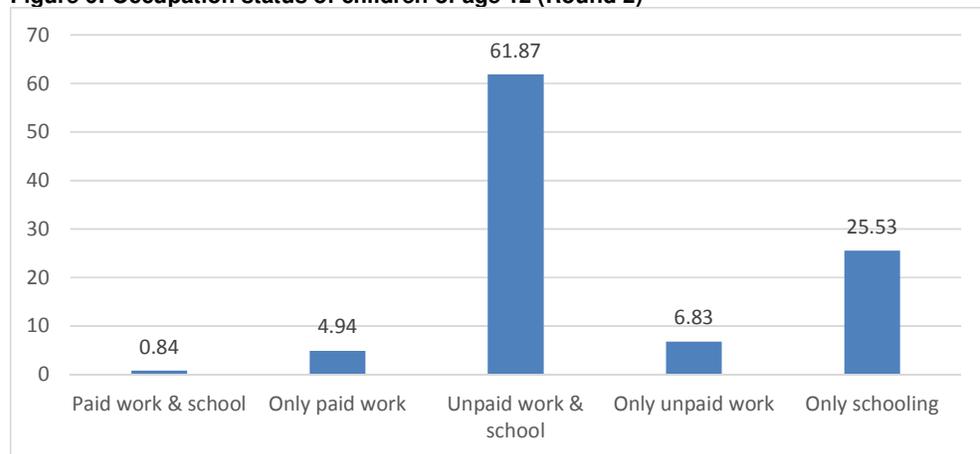


Table 8 provides information on these categories along with some background variables. The majority of the children aged 12 years (approximately 62 per cent) combined school and unpaid work (household and work on family farm), 1 per cent combined school and paid work, while only 25 per cent of the children studied full-time. Only 5 per cent were involved in full-time paid) and 7 per cent in unpaid work and because of the detailed survey instrument, just 0.5 per cent were seen to be idle.

Table 8: Description of children in each activity category in Round 2 (Age 12)

	Paid work and school	Full time paid work	Unpaid work and school	Full time unpaid work	Full time in education
Wealth Tercile (R2)					
Bottom	1.24	8.07	61.18	10.25	19.25
Middle	0.32	5.68	67.19	8.2	18.61
Top	0.96	0.96	57.19	1.92	38.98
Mother's education					
None	0.62	6.64	62.04	8.64	22.07
Primary	1.0	3.0	65.0	3.0	28.0
Middle	1.2	-	65.06	1.2	32.53
Secondary level and above	2.04	-	55.1	1.02	41.84
Father's education					
None	0.86	6.85	60.81	10.92	20.56
Primary	0.92	3.67	64.22	9.17	22.02
Middle	-	-	68.42	1.05	30.53
Secondary level and above	0.5	1.98	57.43	0.99	39.11
Gender					
Boys	0.86	4.72	53.0	5.58	35.84
Girls	0.82	5.14	70.37	8.02	15.64
Total Number of children	8	47	589	65	243

A further analysis of the children by caste and wealth groups shows that children who belong to the bottom and middle terciles are more likely to be in full-time paid and unpaid work than children who belong to the top tercile. Furthermore, the percentage of children enrolled in full-time schooling is found lowest among children from bottom tercile households and this percentage is highest among children coming from top tercile households. In contrast, the fraction of children who did only paid work (early drop-outs) are highest among bottom tercile (8 per cent), followed by middle tercile (6 per cent). Less than 1 per cent children from top tercile were found in full-time paid work.

Interestingly, the highest number of children combining unpaid work and school are found amongst middle tercile households, with almost 67 per cent of children from middle tercile combining schooling and unpaid work as against 61 per cent of children from bottom tercile. This can be explained by the fact that a large number of children from the poorer terciles, seem to have no option but to work within their homes and farms by age 12. Furthermore, boys were found more likely to (nearly 16 per cent)

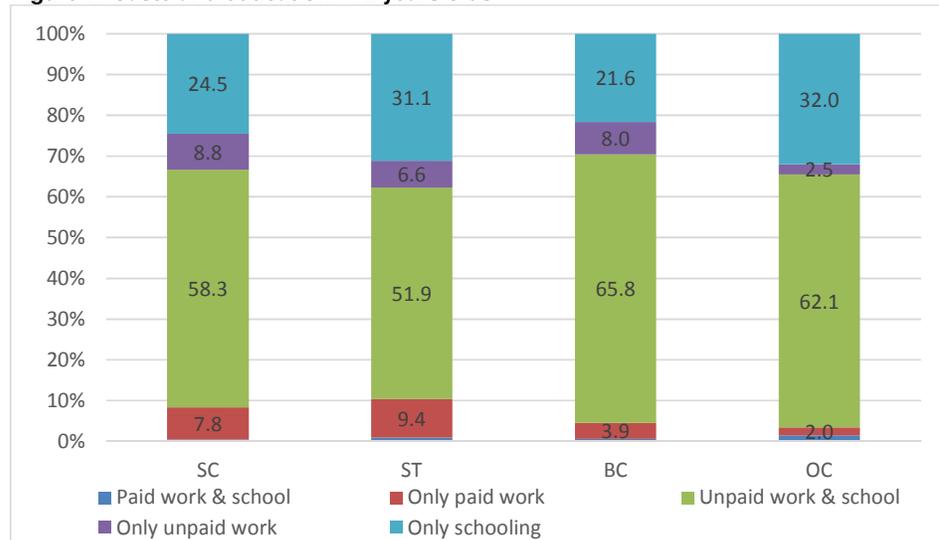
combine paid work and school than girls (around 10 per cent), though girls were found in equal numbers in full-time education as boys.

Parental education, particularly maternal education, was found to have a co-relation with children’s occupation at age 12, with almost 42 per cent of the children having mothers with secondary education in full-time education as against only 22 per cent of children whose mothers had no formal education.

Father’s education also seems to have a similar association, with 39 per cent of children with fathers with secondary education in full-time education as compared to 20 per cent of those whose fathers had no formal schooling.

Figure 7 shows the percentage of children engaged in different occupation at age 12 years by different caste-groups. What stands out is that almost a third of Other Caste children and Scheduled Tribe children are in full-time education. It is important to point out that a very large number of Scheduled Caste and Scheduled Tribe children found in the category of full-time education, were actually enrolled in State Government’s residential schools known as Ashram Schools and Integrated Tribal Development Agency (ITDA) hostels. The share of children combining paid work and schooling is extremely small at age 12, while more than half the children across all caste groups are seen to be involved in unpaid work and schooling at age 12 years.

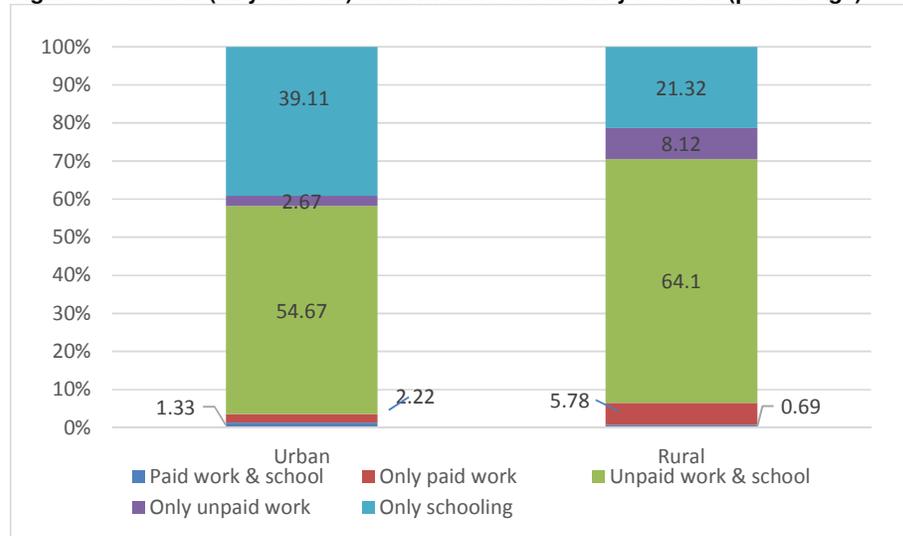
Figure 7: Caste and education - 12 years olds



* The per cent of children in the category combining “paid work and school” is very low (below 1% for SC/ST/BC and 1.5% for OC) and not visible in this figure
 Source: Young Lives Survey, 2006.

Figure 8 shows the children’s occupation at age 12 by place of residence. The results clearly show that there was striking urban-rural gap in terms of children in full-time education at age 12 years. While 39 per cent of the children were found to be in full-time education in urban areas, only 21 per cent of children were in full-time education in rural areas. While 6 per cent of rural children were involved in full-time paid work and 8 per cent, occupied in full-time unpaid work, only 2 per cent and 2.6 per cent in urban areas were involved in full-time paid and unpaid work respectively.

Figure 8: Children (12 years old) in work and education by location (percentage)



Source: Young Lives Survey, 2011.

Box 10

Prabhakar, a boy from the Scheduled Tribe, living in the rural areas studied up to sixth class while residing in a government hostel and then discontinued his education despite his parent's insistence to continue. At the time of the interview, he was involved in work such as ploughing, spraying pesticides, plucking red chillies, plucking cotton, paddy cutting and harvesting (padugu), and weeding, among other work. He is often called upon for spraying pesticides. He regrets not having continued his studies, saying that 'all work is difficult... I don't know about others... but I feel all work is difficult ... since I came home (from hostel), I have no other option... certain pesticides are unbearable ... I can't bear that smell... in such situations I get either fever or other problems..... We have to fill chilly (hot peppers) (into gunny bags) during the night and have to load the bags during the day time... that work is also very difficult ... our hands burn because it is chilly of hot taste (pungent)... lifting of heavy bags is also difficult... the cough comes... doing it is really troublesome.'

Source: Young Lives Interviews, 2013.

Box 11

The father of 15-year old Sanjana, a girl from the Backward Class, grazed sheep and her mother and younger sister were agricultural labourers. Sanjana left school in seventh class, but after two years, after encouragement of her grandmother, she re-joined school and is currently studying in eight class. She said she had been doing paid work and grazing sheep since she was seven years old. She often missed school and took notes from other children. Her excuse for not attending school was given as having fever and she was always afraid her teacher would figure out that she was not being truthful. On how she learned agricultural work, Sanjana said "my mother used to take me to the fields at a young age. I saw what she did and I learnt." Sanjana feels that the work she has learnt from her mother is useful because, "if we study and don't get a job then we can do these works because they are (of) use to us." However, she believes it is very important to continue schooling, since in her view "even if we work in our fields there is no guarantee until the money comes in to our hands. ... (But) if we get educated our future will be bright and we need not depend on any one."

Source: Young Lives Interviews, 2013.

Qualitative interviews conducted by Young Lives in 2011, with a sample of rural children involved in agricultural work highlighted the fact that many of them had to start working on their own farms at an early age, with girls pulled out of school as they reached puberty or due to financial constraints.

6. Work and educational outcome linkages

6.1 School completion

To understand how children's work at age 12 affects long term educational and occupational outcomes at age 19, the paper looks more specifically at data and information from Rounds 2 and 4. The variable used to examine children's work status at age 12 (Round 2) is: "Have you undertaken any paid work in the last 12 months?" (Table 9).

Table 9: work status at age 12 and occupation of children at 19 years of age (R2 and R4)

Work status at age 12	Occupation / Activities at age 19 (R4)						
	Completed Secondary	Completed Higher Secondary	Continuing Education	Self-employed: Agriculture	Wage-employed: Agriculture	Self-employed: Non-agriculture	Wage-employed: Non-agriculture
Paid work (R2)							
No	77.3***	51.6	56.5	17.9	5.3	5.2	15.2
Yes	48.5	20.6	20.1***	37.6	13.4	7.2	21.7
Hours spent on domestic chores (R2)							
0 Hour	80.6***	57.2	53.2***	19.7	5.4	5.7	16.1
1 Hour	74.9	44.5	47.2	21.1	5.5	4.3	21.9
2 Hours	61.0	35.9	46.2	26.2	11.8	6.2	9.7
3 Hours and more	34.5	20.7	50.0	25.9	8.6	10.3	5.2
Fulltime education (R2)	85.6	63.4	58.0	15.2	5.4	5.3	16.1
Overall	71.4	45.3	49.1	22.0	6.9	5.6	16.5

Note: Chi square test of association: ***p<0.01

Only 49 per cent of children who combined paid work and schooling at age 12, were found to complete secondary education compared to 77 per cent who were not involved in paid work. The situation appears worse in terms of senior secondary completion, with only 21 per cent children completing higher secondary education who participated in paid work at early age in comparison to 52 per cent children who did not do any paid work at early age.

The findings show that children who did paid work at age 12 have adverse educational outcomes at age 19 in terms of completion of both secondary and higher secondary education.

Hours spent on domestic chores at age 12 is also found to be co-related with completion of secondary and higher secondary education. Results show that completion rate is much lower among children who invested 3 hours and more in domestic chores at the age of 12 (34.5 per cent secondary and close to 21 per cent higher secondary completion) in comparison to children who did not spend any time in domestic chores at that age (over 80 per cent secondary and 57 per cent higher secondary).

The findings show that children who spent three hours or more doing domestic chores at age 12 have lower completion rate for secondary and higher secondary education at age 19 when compared to children who did not spend any time in domestic chores.

The findings also show that children who spent three hours and more in after-school studies were over 16 times more likely to complete secondary education than children who did not spend time in studies after school.

Among children in full-time education at age 12, over 85 per cent are shown to have completed secondary education and just over 63 per cent children have completed higher secondary education.

Among children who combined both paid work and schooling at age 12, 76 per cent completed secondary education and only 34 per cent children completed higher secondary education. Thus the differential is much smaller amongst children who were in full time education as compared to those who combined paid work and schooling at secondary level completion than at the senior secondary stage.

The findings show that children who combined paid work and schooling at age 12 had almost half the completion rate for higher secondary education as compared to children in full-time education at age 12.

6.2 The paths from paid work at age 12

Paid work at age 12 is also found to be associated with certain occupational trajectories at age 19. For example, children who did paid work at age 12, have been found to work mainly in self-employed agriculture (over 37 per cent), followed by wage employment in non-agricultural sector (almost 22 per cent) and only 20 per cent of the children were continuing education.

Conversely, children who did not do any paid work at age 12, were found mainly to be continuing in education (56.5 per cent), followed by self-employment in agriculture (close to 18 per cent).

There are many family and individual related factors that affect the decision or ability to continue and complete secondary education. Table 10 presents the odds ratios from logistic regression analysis which looks at factors related to wealth status, gender, location, parental education, birth order, paid work, domestic chores and hours spent studying after school for children at age 12 and likelihood of completing secondary education.

Table 10: Odds ratio representing likelihood of completing secondary education

Variables	Odd Ratio	z-Score	p-Value	Predicted Probabilities
Gender				
Male ^(Ref)				0.76
Female	0.586	-2.82	0.005	0.68
Birth-order				
One ^(Ref)				0.76
Two	0.810	-0.89	0.376	0.73
Three	0.599**	-2.00	0.045	0.69
Four and above	0.574**	-2.14	0.033	0.68
Mother's education				
None ^(Ref)				0.69
Primary	2.118	2.34	0.019	0.79
Middle	1.734	1.50	0.134	0.77
Secondary	5.396	3.29	0.001	0.89
Wealth tercile (r2)				
Bottom tercile ^(Ref)				0.71
Middle tercile	1.059	0.29	0.775	0.71
Top tercile	1.312	1.10	0.270	0.75
Did child do paid work? (r2)				
No ^(Ref)				0.73
Yes	0.731	-1.41	0.158	0.62
Hours spent on domestic chores (r2)				
0 hour ^(Ref)				0.75
1 hour	0.825	-0.85	0.395	0.72
2 hours	0.757	-1.04	0.297	0.71
3 and more hours	-0.497**	-1.74	0.082	0.64
Hours spent on studying outside school (r2)				
0 hour ^(Ref)				0.31
1 hour	7.895*	7.35	0.000	0.74
2 hours	10.996*	8.43	0.000	0.79
3 and more hours	16.622*	8.99	0.000	0.85

Note: (Ref) = reference category, Dependent variable: completion of secondary education: 1 = Yes, 0 = No
Significance levels: * @ 1%, ** @ 5% level

The analysis shows that:

- After controlling for children's work on both domestic chores and paid work at age 12, as compared to boys, girls are 41 per cent less likely to complete secondary education.
- Birth-order of the children is also significantly associated with completion of secondary schooling.
- Children with a birth-order fourth and above are 43 per cent less likely to complete secondary education.
- Mother's education is positively and strongly associated with completion. Children with mothers having secondary and above education are 5.3 times more likely to complete grade 10.

- Children who experienced paid work at the age of 12 are 27 per cent less likely to progress through secondary education. The same holds true while considering hours spent in domestic chores.
- Children who spent three and more hours in domestic chores are 50 per cent less likely to complete secondary education in comparison to children who did not undertake chores. However, this link was not seen to hold if children spent one or two hours in domestic chores.
- Increasing number of hours spent on studies outside school emerged as a significant predictor of completion of secondary education. Children who spent one hour studying after school, are eight times more likely to complete secondary schooling, two hours of study ten times more likely and those who spent three hours and more studying after school were over 16 times more likely to complete secondary education than children who did not spend time in studies after school.

6.3 Gender disparity in probability of secondary school completion

In terms of completion of secondary schooling, the predictive probability is found higher among boys than girls. Figure 9 shows male-female differences in probability of completing secondary education by their work status at age 12.

- Both boys and girls who did paid work at age 12 have lesser probability in completing secondary education as compared to boys and girls who did not do paid work.
- Among boys and girls who both did paid work, the probability of completion of secondary education is higher for boys than for girls.

Figure 9: Predicted probability of completing secondary education (by gender and paid work at age 12)

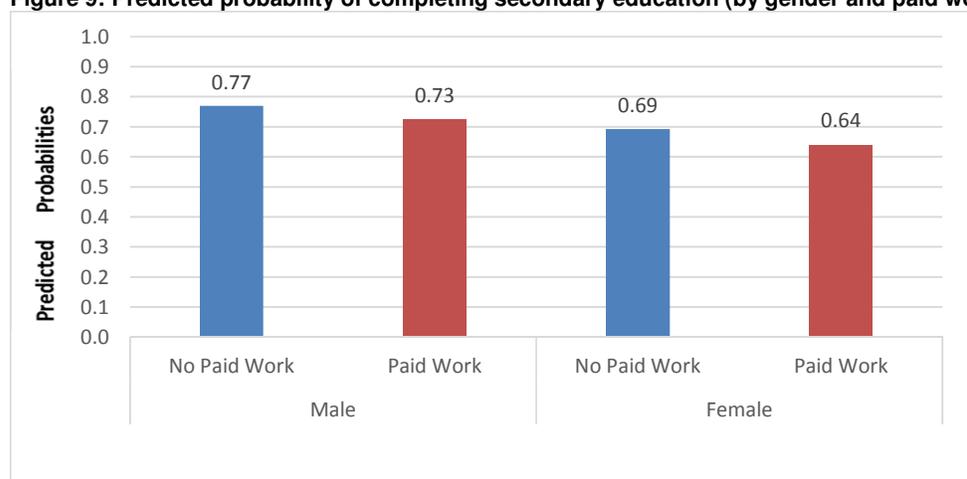


Table 11 further highlights what is seen as the girls’ disadvantage in completing secondary education across all work-school status group when compared with boys in the same status group.

Table 11: Gender differential in secondary completion by occupation at age 12

Occupation at age 12	Completion of Secondary Education	
	No	Yes
Boys*		
Paid work and school	50.0	50.0
Unpaid work and school	17.8	82.2
Only schooling	12.6	87.4
Girls**		
Paid work and school	75.0	25.0
Unpaid work and school	26.0	74.0
Only schooling	18.4	81.6
Total	20.6	79.4

Note: Chi- square test of association Significance levels: * @ 1%, ** @ 5% level

7. Conclusion

The paper sought to gain insight into whether or not the status of children’s work at a younger age (12 years) had an impact on their completion of education at a later age (19 years). The advantage of Young Lives India data has been three-fold.

- First, as it is longitudinal data pertaining to specific children it provided real-case data in real time.
- Second, the bifurcation of the work data into paid and unpaid (including household chores) gave life to the invisible work that so many children, particularly girls, are involved in from a young age.
- Third, the voices of the same children on whom data is presented additionally humanized the data from the children’s perspectives – the hazards they are exposed to at work, the parents urging the children to continue their education, or the parents succumbing to tradition and grooming their daughters for child marriage, the impression that the children have of their teachers as being disconnected and the school infrastructure that limits participation of certain cultural groups.

Following are the key findings policy considerations arising from the analysis presented in this paper.

Increased incidence of combining school and paid/unpaid work as children grow older

The numbers for children in *full time* education decreased as the age group increased, and with it the numbers for children combining education and work (paid or unpaid work) increased. At age 12, some 72 per cent were in full time education, but by the time the children reached 14-15 years, only 19 per cent were full time education. The 16 per cent of children combining school and work increased to almost 58 per cent as the children turned 14-15 years. A very large proportion of the children across all quartiles and social categories were combining school and work (paid and unpaid) work across the

various survey rounds. Of those to be least likely in full-time education with advancing years were girls, and children from the rural areas and Scheduled Caste/Scheduled Tribes.

Increased disparities based on gender, location, caste and wealth

By comparing time use data of boys and girls it is clear that gendered roles are defined very early and girls remain significantly deprived of time they can allocate towards studies and leisure. Disparities also emerge between rural and urban areas with 90 per cent of urban children in full time education at age 12 as compared to just over 67 per cent of rural children. Children from the disadvantaged Scheduled Castes and Scheduled Tribes were found to be marginalized.

Multiple factors influencing continuation in school

The qualitative data captures voices of girls and boys from the poorest tercile citing reasons related to household debts associated with child marriage, shocks, distance of schools, rising fees and costs associated with secondary education, as well as absence from school for long periods as key factors that compel them to leave school.

Paid work at age 12 and its effects on occupational outcomes

In terms of occupations at 19 years of age, most of the children who combined *paid work* and schooling or did only paid work at age 12 are found to be engaged in agricultural activities at the age of 19 years. On the other hand, majority of children who combined *unpaid work* and schooling or were in full time education at 12, are found to be continuing education in Round 4 survey i.e. at 19 years of age.

Time spent on paid and unpaid work has negative effects on completion of secondary education

The logistic regression clearly demonstrates a correlation between engagement in paid work and progression through secondary education, with children engaged in paid work at age 12 being 27 per cent less likely to progress through secondary education than children who did not participate in paid work. Furthermore, children who spent three and more hours per day in domestic chores are 50 per cent less likely to complete secondary education in comparison to children who did not undertake chores. In short, a significant negative correlation exists between three or more hours spent in domestic chores and secondary school completion. However, no significance is found if children spent one or two hours in domestic chores. These findings need to be dove-tailed with the evidence that spending one hour on studies after school increases the probability of completing

Key conclusions from time-use data on work and school

- Paid work at age 12 had adverse educational outcomes at age 19 for completion of secondary and higher secondary education.
- Domestic chores of 3 hours or more at age 12 resulted in lower completion rate for secondary and higher secondary education at age 19 when compared to no-time in domestic chores.
- After-school studies of 3 hours or more resulted in more likely completion of secondary education – over 16 times – when compared with no after-school time on studies.
- Combined paid-work and schooling at age 12 reduced by almost half the completion rate for higher secondary education as compared to children in full-time education at age 12.

secondary education by eight times and those spending three or more hours on studying after school are over 16 times more likely to complete secondary education as compared to children who spend no time studying.

7.1 Towards policy consideration

The longitudinal data clearly shows the connection between school enrolment and reduction in child labour, and the above logistic regression findings have immense bearing on policy formulation. It is clear that children who are involved in paid work at an early age i.e. 11-12 years, have very slim chances of completing their secondary education. However, children's voices provide evidence that shocks related to crop failure as well as household loans can have a detrimental effect on their education, particularly when no social protection measures or credit facilities are readily available to the families and easily accessible by them in such circumstances. While it is important for the poorest children to be provided with full and easy access to equitable, quality education, it is equally important that as policy and practice the poorest families have easy access to the safety-nets they need. With this, the children will not be pulled out of school and denied their right to leisure, play and education.

Evolving support mechanisms for children combining school and unpaid permissible work

Undoubtedly, *Sarva Shiksha Abhiyan* has resulted in a large number of the poorest children enrolling in primary and upper primary schools. Parents are also keen to see that their children get the education they themselves did not receive. However, as children grow older and enter upper primary and secondary education, it is clear that a large majority of the poorest children, who are fortunate to continue education, have to do so by combining school and work. The analysis has highlighted that those children who spent three hours or more of their time in domestic chores at age 12, had a slimmer probability of completing secondary education and time available to children in studying after school has a direct bearing on completion of secondary education. Therefore, community-based mechanisms for awareness raising and regulating the number of hours children are spending on domestic chores must be evolved at community level, to ensure that children spend adequate time on studying during and after school hours and are not involved in 'gratuitous work'.

Coordinated enforcement of labour and education laws, with integrated monitoring systems

The Child Labour (Prohibition and Regulation) Amendment Act, 2016, which was signed into law on 29 July 2016, sets the general minimum age for employment of children at 14 years and raises the age below which children cannot be engaged in work and processes of hazardous nature to be at 18 years. These two changes bring the national law to be more in line with the ILO Conventions on child labour (Conventions No. 138 on Minimum Age to Employment and No. 182 on the Worst Forms of Child Labour). The exceptions under the law that are granted for work in family enterprises and the removal from the law of the more comprehensive Schedule of hazardous work will require close involvement of communities, including through community-based child labour monitoring to ensure that children are protected from hazardous and that they are in school. The labour and education inspection systems must work in collaboration with other inspection and monitoring systems and communities to protect children from harmful work and to participate in education.

Special focus

Location, demography, parental education, birth order and wealth index have a strong correlation with whether children are in full-time education or instead combining school and work. Children from rural areas, Scheduled Castes and Scheduled Tribes and those from large families seem to be the ones who are most disadvantaged. It is critical that policy makers ensure equitable quality education to *all* children, with a special emphasis on targeting socially, economically disadvantaged households, often characterised by large number of children as well as children and families with disabilities. Children need to be protected from all kinds of work that is harmful and impedes their learning process. This will only be possible if community-based monitoring mechanisms are evolved to support the poorest households from withdrawing children from school. Village Education Committees and the Panchayati Raj Institutions can play a vital role in providing oversight, particularly in rural settings. Schools might also take account of seasonal demands for children's work in timing their vacations and teachers must provide educational support to overcome children's temporary or occasional absence due to demands of work, by providing extra classes.

Gender roles and impact

The analysis highlights the gendered roles that start from an early age, determine children's participation in work activities starting from a very young age. The longitudinal analysis demonstrates that while more boys are pushed into paid work between 8 and 12, girls are burdened with long hours of domestic chores at an early age, which impacts their educational outcomes. Campaigns can help to sensitise families on long term repercussion of three or more hours per day of domestic chores. Also helpful would be messages that support the need of girls for adequate time for studying after school hours and sharing of an appropriate level of household responsibilities by both girls and boys.

Institutional support

There is also an urgent need for both *Sarva Shiksha Abhiyan* (SSA) and *Rashtriya Madhyamik Shiksha Abhiyan*⁹ (RMSA) to put in place strategies and incentives to encourage children who have dropped out of school to return to school through options, such as flexible and open schooling, or residential facilities, such as the upgrade of *Kasturba Gandhi Ballika Vidyalaya*¹⁰ (KGBV), for secondary and senior secondary schooling. Children living in residential schools are by default provided an opportunity to be in full-time education and in a majority of cases may lead to increasing children's opportunity to continue in education. Given this evidence, the extension of such programmes can be extended to support children and adolescents until twelfth class. These institutions must also ensure that the indigenous knowledge and language of the children is secured and celebrated.

Gender discrimination and child marriage

With over 253 million children and adolescents (113 million girls and 130 million boys) in the age group of 10-19 years, accounting for nearly 20.9 per cent of the population (Census, 2011), it is critical

⁹ *Rashtriya Madhyamik Shiksha Abhiyan*, India - secondary education of good quality available, accessible and affordable to all young persons in the age group 15-16 years.

¹⁰ *Kasturba Gandhi Ballika Vidyalaya*.

that gender-based discrimination and child marriage are addressed through national efforts implemented through programmes that are initiated by the Government over the years. Among these are programmes such as *Beti Bachao Beti Yojna*¹¹ (BBBP), *Rashtriya Kishore Swasthya Karyakram*¹² (RKSK), as the *Sabla*, *Rashtriya Madhyamik Shiksha Abhiyan*¹³ (RMSA), SSA, the recently launched adolescent programme (RKSK), and The starting point must be to address prevailing mind-sets, norms and practices arising from the different value placed on the contribution of boys and girls towards the family and society. This requires deconstructing prevailing gender ideologies and patriarchy that have become the basis of social norms, and practices, under the guise of ‘tradition’ and ‘culture’. Implementation of the Prohibition of Child Marriage Act by converging with the National Adolescent Health Strategy (*Rashtriya Kishore Swasthya Karyakram*) which adopts a holistic and life-course approach to addressing the multiple health and well-being needs of adolescents, is critical. Curriculum, text-books and media must also ensure that clear messages are provided to counter prevailing mind-sets on gender and social discrimination.

Pre-vocational/vocational skills training

Curriculum in secondary level must be linked to pre-vocational skills and provide adolescents with better for life skills. Keeping in view the limited success of the Centrally Sponsored Scheme of Vocationalization of Secondary Education, it is vital that the recently launched “Vocationalization of Secondary and Higher Secondary Education” provides an enabling framework and necessary guidelines to ensure that the most disadvantaged adolescents are provided with relevant skill-based education.

Scholarships

Children’s voices provide evidence that rising costs of schooling, particularly secondary education can have a detrimental effect on their participation in education, in light of the few or non-existent credit facilities available to the poorest families. As *Rashtriya Madhyamik Shiksha Abhiyan* (RMSA) is being implemented to meet the goal of universal secondary education, it is critical that it meets necessary costs of education beyond the fee and provide scholarships to girls and boys belonging to poorest terciles, to enable them to balance household and educational priorities.

Responsive schooling

It is important that schooling at all levels, particularly upper primary, provides children with the support system to catch up with studies if they have been absent for a considerable amount of time and missed important school instruction. As children move into secondary and senior secondary classes, the curriculum must provide them context-specific skills relevant for them to improve their lives, to encourage them to continue higher education and secure meaningful employment. A life-cycle perspective and approach to evolving social protection schemes is needed so as to provide a safety net for the poorest and most disadvantaged families, so that children can be provided the path to overcome intergenerational transmission of poverty.

¹¹ *Beti Bachao Beti Padhao Abhiyan* (BBBP) - a special programme to education and empower.

¹² *Rashtriya Kishore Swasthya Karyakram* (RKSK) – National health programme for adolescents, in the age group of 10-19 years, which would target their nutrition, reproductive health and substance abuse, among other issues.

¹³ *Rashtriya Madhyamik Shiksha Abhiyan* (RMSA) - secondary education of good quality available, accessible and affordable to all young persons in the age group 15-16 years.

7.2 Way forward

This paper examined the important role of childhood experiences with work and their impact on education. It was prepared as a policy discussion paper using Young Lives longitudinal data from India to encourage debate around the linkages between child labour and schooling. The paper already generated a robust discussion when it was presented at the technical consultation on child labour and education, organized on the occasion of World Day against Child Labour (WDACL) 2015 on 12 June 2015 in New Delhi. In view of the recent signing of The Child Labour (Prohibition and Regulation) Amendment Act, 2016, which was signed into law on 29 July 2016, and the concerns with certain provisions, the issues discussed in the paper take on proportions of even greater relevance. Further analysis, particularly of the longitudinal data that is available, but also new research and data can contribute to better understanding of the issues involved. The understanding and debate are important and must lead to greater support for children's education and protection from harmful work through policies and programmes that are adequately funded and swiftly delivered to ensure that children can enjoy the rights granted to them by law. Funding options should pursue mainstreaming the issues and concerns into key policies and programmes as well as through special schemes, providing ample feedback loops and evaluations to constantly improve and update initiatives and undertake research and analysis.

References

- Basu, K.; Das, S.; Dutta, B. (2010). "Child labor and household wealth: theory and empirical evidence of an inverted-U", *Journal of Development Economics*, Vol. 91, No. 1, pp. 8-14.
- Bhat, B.A. (2010). "Gender, education and child labour: A sociological perspective", *Educational Research and Reviews*, Vol. 5, No. 6, pp. 323-328.
- Dercon, S.; Cooper. E. (2007). *Understanding child poverty in developing countries: Opportunities using the Young Lives longitudinal survey data*, Young Lives Working Paper, No. 48 (Oxford, University of Oxford).
- Galab, S.; Kumar, V; Reddy, P; Singh, R; Vennam, U. (2011). *The impact of growth on childhood poverty in Andhra Pradesh: Initial findings from India*, Round 3 Survey Report (Oxford, Young Lives).
- Government of India (GoI). (2012). *Census, 2011* (New Delhi, Office of the Registrar General and Census Commissioner, India). Available at http://censusindia.gov.in/2011-prov-results/prov_results_paper1_india.html [Accessed Sept. 2013].
- (2002). *Census, 2001*. (New Delhi, Office of the Registrar General and Census Commissioner).
- Himaz, R. (2009). *Is there a boy bias in household education expenditure? The case of Andhra Pradesh in India based on Young Lives data*, Young Lives Working Paper, No. 46 (Oxford, University of Oxford).
- International Institute for Population Sciences (IIPS). (2010). *District level household and facility survey (DLHS-3), 2007-08: India* (Mumbai, IIPS).
- International Labour Organization (ILO). (2013). *Progress against child labour - Global estimates and trends 2000-2012* (Geneva, ILO).
- Khan, S; Lyon, S. (2015). *Measuring children's work in South Asia: Perspectives from national household surveys* (New Delhi, ILO).
- Krutikova, S. (2009). *Determinants of child labour: the case of Andhra Pradesh*, Young Lives Working Paper, No. 48 (Oxford, University of Oxford).
- Kumra, N. (2008). *An assessment of the Young Lives sampling approach in Andhra Pradesh, India*, Young Lives Technical Note, No. 2 (Oxford, University of Oxford).
- Ministry of Human Resource Development (MoHRD). (2009). *Framework of implementation of Rashtriya Madhyamik Shiksha Abhiyan*. (New Delhi, Ministry of Human Resources), Available at http://mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/Framework_Final_RMSA_3.pdf [Accessed Aug. 2016].
- Ministry of Human Resource Development (MoHRD). (2014). *Vocationalisation of secondary and higher secondary education*. (New Delhi, Ministry of Human Resources), Available at http://mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/REVISED-SCHEME-VHSE.pdf [Accessed Aug. 2016].
- Morrow, V.; Vennam, U. (2012). "Children's responses to risk in agricultural work in Andhra Pradesh, India", *Development in Practice*, Vol. 22, No. 4, pp. 549-561.

- (2010). "Combining work and school: the dynamics of girls' involvement in agricultural work in Andhra Pradesh, India" *Children & Society*, Vol. 24, No. 4, pp. 304-314.

Morrow, V; Singh, R. (2014). *Corporal punishment in schools in Andhra Pradesh, India: Children's and parents' views*, Young Lives Working Paper, No. 123. (Oxford, University of Oxford).

Muralidharan, K.; Sundararaman, V. (2011). "Contract teachers: Experimental evidence from India", *Economics of Education Review*, Vol. 30, pp. 394-403.

National Sample Survey Organization (NSSO). (2006). *Employment and unemployment situation in India, 1999-2000*, Ministry of Statistics and Programme Implementation (MoSPI) (New Delhi, Government of India).

Onwuegbuzie, A.J.; Leech, N.L. (2005). "On becoming a pragmatic researcher: The importance of combining quantitative and qualitative research methodologies", *International Journal of Social Research Methodology*, Vol. 8, No. 5, pp. 375-87.

Rumberger, R.W.; Lim, S.A. (2008). *Why students drop out of school: A review of 25 years of research*, California Dropout Research Project (Santa Barbara, University of California). Available at: http://cdrp.ucsb.edu/dropouts/pubs_reports.htm.

Sanghera, G.S. (2008). "The 'Politics' of children's rights and child labour in India: A social constructionist perspective", *The International Journal of Human Rights*, Vol. 12, No. 2, pp. 215-232, Available at <http://dx.doi.org/10.1080/13642980801899667>. [Accessed Dec. 2013].

Singh, R; Bangay, C. (2014). "Low fee private schooling in India - More questions than answers? Observation from the Young Lives longitudinal research in Andhra Pradesh", *International Journal of Educational Development*. Vol. 39, pp. 132-140.

Singh, R; Sarkar, S. (2015). "Does teaching quality matter? Students learning outcome related to teaching quality in public and private primary schools in India", *International Journal of Educational Development*, Vol. 41, pp. 153-163.

- (2012). *Teaching quality counts: How student outcomes relate to quality of teaching in private and public schools in India*, Young Lives Working Paper, No. 91. (Oxford, University of Oxford), Available at <http://www.younglives-india.org/files/working-papers/teaching-quality-student-outcomes-india> [Accessed Aug. 2016].

Sud. (2010). "Can non-formal education keep working children in school? A case study from Punjab, India", *Journal of Education and Work*, Vol. 23, No.1, pp. 1-26.

United Nations Children's Fund. (2014). *Ending child marriage: Progress and prospects*. (New York, UNICEF).

- (2012). *Child marriage in India: An analysis of available data*. (New Delhi, UNICEF).

Vinayak, A. (2006). *Out of school children in Andhra Pradesh*. Mimeo. (Hyderabad, MV Foundation).

World Bank. (2009). *Secondary education in India: Universalizing opportunities*. Human Development Unit, South Asia Region, World Bank.

Perspectives on children's work and schooling: Evidence from a longitudinal study in Andhra Pradesh and Telangana, India

Using data from a longitudinal study of children's use of time that spans seven years in the lives of 1,000 children, this report examines the relationship between childhood work experience and later educational outcomes. Observations from more than 20 locations distributed throughout the diverse south-eastern Indian states of Andhra Pradesh and Telangana show a significant unifying trend that indicates how early work may hinder childhood education and development.

Survey data is combined with qualitative interviews which strongly support the argument that experience with paid and unpaid work during early teenage years greatly reduces a young person's chances at completion of secondary education. The effects of early teenage engagement in full time paid work, full time unpaid work, and different combinations of paid/unpaid work and schooling are each considered. Background factors such as family social and economic status, contrasts between urban and rural communities, and gender are controlled and analysed in depth.

ILO DWT for South Asia and Country Office for India
India Habitat Centre, Core 4B, 3rd Floor
Lodhi road, New Delhi-110 003
India

Tel.: +91 11 4750 9200, Fax: +91 11 2460 2111

Email: delhi@ilo.org

www.ilo.org/india
www.ilo.org/sacl

DECENT WORK

A better world starts here.

ISSN: 2227-4405 (web pdf)