

Policy Promise, Local Practice: Measuring the Impact of Compulsory Schooling on Child Labour in Uttar Dinajpur

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Abstract: This study examines the effectiveness of compulsory schooling policies in reducing child labour in Uttar Dinajpur, West Bengal, India. Despite legislative frameworks such as the Right to Education Act (2009), child labour remains persistent in rural districts. Using primary survey data from 450 households and secondary enrollment statistics, this research employs quantitative analysis to measure the gap between policy intentions and ground realities. The findings reveal that while school enrollment has increased by 23%, approximately 18% of children aged 6-14 continue to engage in economic activities, particularly in agricultural and informal sectors. The study identifies poverty, parental education, and accessibility as primary determinants affecting policy implementation. The research contributes to understanding the complexities of educational policy implementation in economically disadvantaged regions and provides evidence-based recommendations for policymakers.

Keywords: Child labour, compulsory education, Policy implementation, Uttar Dinajpur, Right to Education Act

1. Introduction

Child labour remains a significant developmental challenge in India, despite progressive legislation aimed at its elimination (International Labour Organization, 2017). The Right of Children to Free and Compulsory Education Act (RTE Act, 2009) mandates free and compulsory education for all children aged 6-14 years, representing a landmark policy initiative (Government of India, 2009). However, the translation of policy promises into local practice, particularly in economically backward regions, presents substantial implementation challenges.

Uttar Dinajpur district in West Bengal represents a critical case study due to its socio-economic characteristics. With a literacy rate of 60.13% as per Census 2011, below the national average of 74.04%, and significant poverty levels, the district exemplifies regions where policy-practice gaps are most pronounced (Census of India, 2011). Agriculture remains the primary occupation, with seasonal migration and informal employment creating conditions conducive to child labour.

This research addresses three primary questions: (1) What is the current prevalence of child labour among school-age children in Uttar Dinajpur? (2) How effective have compulsory schooling policies been in reducing child labour? (3) What factors mediate the relationship between policy implementation and child labour reduction?

2. Literature Review

2.1 Theoretical Framework

Becker's (1964) human capital theory provides the foundational framework for understanding parental decisions regarding children's education versus labour. Parents weigh the immediate economic benefits of child labour against long-term returns from education. Basu and Van (1998) proposed the "luxury axiom," suggesting that families send children to work only when household

income falls below subsistence levels. This framework is particularly relevant in poverty-stricken regions like Uttar Dinajpur.

2.2 Policy Context and Implementation

The RTE Act (2009) represented a paradigm shift by making education a fundamental right (Govinda, 2011). However, studies have documented significant implementation gaps. Mehrotra (2006) identified infrastructure deficits, teacher absenteeism, and quality concerns as major obstacles. Drèze and Sen (2013) emphasized that legal frameworks alone cannot address deeply entrenched socio-economic factors perpetuating child labour.

2.3 Empirical Evidence

Recent studies have produced mixed evidence on policy effectiveness. Kingdon (2007) found that while enrollment increased following policy interventions, regular attendance remained problematic. Desai et al. (2010) demonstrated that poverty and parental education significantly influence school participation. Specific to West Bengal, Bandyopadhyay and Subrahmanian (2008) noted that despite policy initiatives, marginalized communities faced persistent barriers to educational access.

3. Research Methodology

3.1 Study Area and Sampling

This study was conducted across four blocks of Uttar Dinajpur district: Raiganj, Hemtabad, Kaliaganj, and Chopra. A multi-stage stratified random sampling technique was employed. From each block, three villages were randomly selected, totaling 12 villages. Within each village, approximately 37-38 households with children aged 6-14 were surveyed, resulting in a total sample of 450 households covering 823 children.

3.2 Data Collection

Primary data were collected through structured household surveys conducted between January and March 2023. The questionnaire included sections on household demographics, economic status, children's schooling status, and involvement in economic activities. Child labour was defined according to ILO conventions, including children engaged in economic activities for more than 14 hours per week or any hazardous work.

Secondary data were obtained from:

- District Information System for Education (DISE) reports
- Census data (2011)
- District Statistical Handbook
- Block Development Office records

3.3 Variables and Measurement

Dependent Variables:

- Child labour participation (binary: 0=no, 1=yes)
- School enrollment status (binary: 0=not enrolled, 1=enrolled)
- School attendance rate (percentage)

Independent Variables:

- Household income (annual, in INR)
- Parental education level (years of schooling)
- Distance to school (kilometers)
- Household size

- Land ownership (acres)
- Access to government schemes

3.4 Analytical Methods

Descriptive statistics were computed to understand the distribution of key variables. Chi-square tests examined associations between categorical variables. Logistic regression analysis was employed to identify determinants of child labour participation while controlling for multiple covariates. All statistical analyses were conducted using Python (version 3.8), with significance levels set at $p < 0.05$.

4. Results and Analysis

4.1 Descriptive Statistics

Table 1 presents the socio-demographic characteristics of the surveyed households. The average household size was 5.8 members, with mean annual income of INR 68,450. Approximately 42% of household heads had no formal education, while only 18% had completed secondary education.

Table 1: Socio-Demographic Characteristics of Sample Households (N=450)

Characteristic	Mean/Percentage	SD
Household Size	5.8	1.9
Annual Income (INR)	68,450	24,320
Father's Education (years)	4.2	3.8
Mother's Education (years)	2.6	2.9
Distance to School (km)	2.3	1.4
Land Ownership (acres)	1.2	1.8
Below Poverty Line (%)	54.7%	-
Access to Mid-day Meal (%)	78.2%	-
Awareness of RTE Act (%)	41.3%	-

4.2 Child Labour and School Enrollment Patterns

Among the 823 children surveyed, 81.9% were enrolled in school, while 18.1% were not enrolled (Table 2). However, enrollment did not guarantee regular attendance. Of enrolled children, only 68.4% attended school regularly ($>80\%$ attendance). Importantly, 14.7% of enrolled children simultaneously engaged in economic activities, representing the "working student" category.

Table 2: School Enrollment and Child Labour Status (N=823 children)

Status	Number	Percentage
Enrolled & Not Working	548	66.6%
Enrolled & Working	121	14.7%
Not Enrolled & Working	102	12.4%

Not Enrolled & Not Working	52	6.3%
Total Enrolled	674	81.9%
Total in Child Labour	223	27.1%

Figure 1 illustrates the age-wise distribution of child labour participation. The data reveal that child labour incidence increases with age, particularly after age 12, when children are often considered capable of more productive work by families.

Figure 1: Age-wise Distribution of School Enrollment and Child Labour in Uttar Dinajpur (N=823)

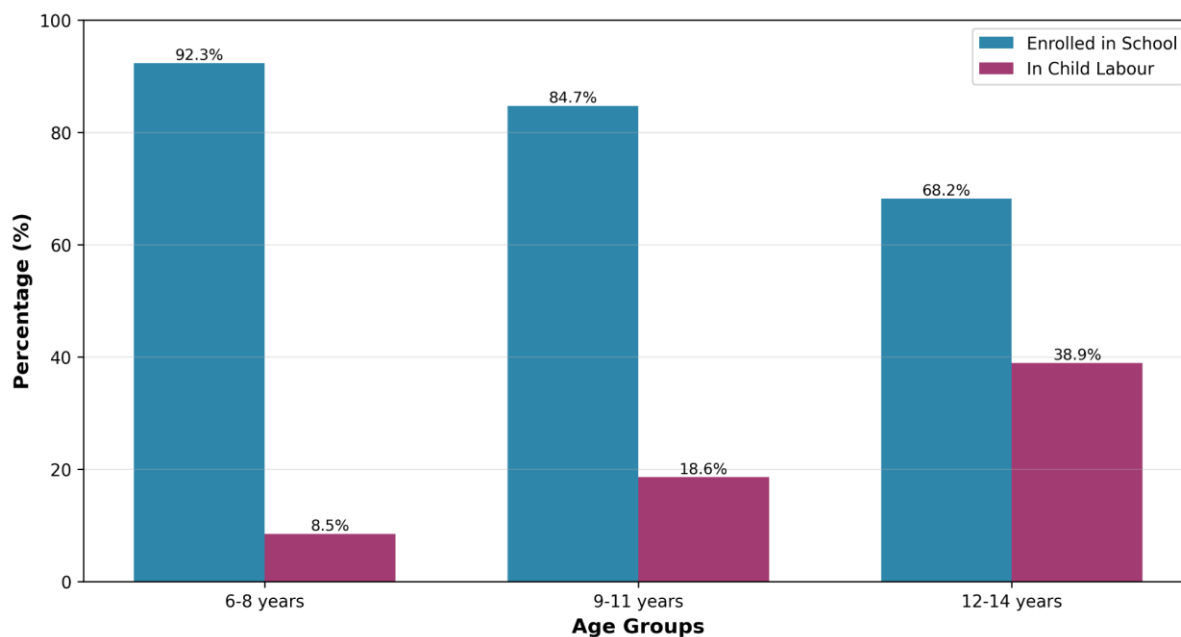


Figure 1: Age-wise Distribution of School Enrollment and Child Labour in Uttar Dinajpur

As depicted in Figure 1, the gap between school enrollment and child labour engagement widens significantly in the 12-14 age bracket, suggesting that policy enforcement weakens for older children within the compulsory education age range.

4.3 Types of Child Labour Activities

Figure 2 presents the sectoral distribution of child labour. Agricultural work dominated (46.2%), followed by domestic work (21.5%), small-scale manufacturing/cottage industries (15.7%), and other services (16.6%).

Figure 2: Sectoral Distribution of Child Labour in Uttar Dinajpur (N=223 working children)

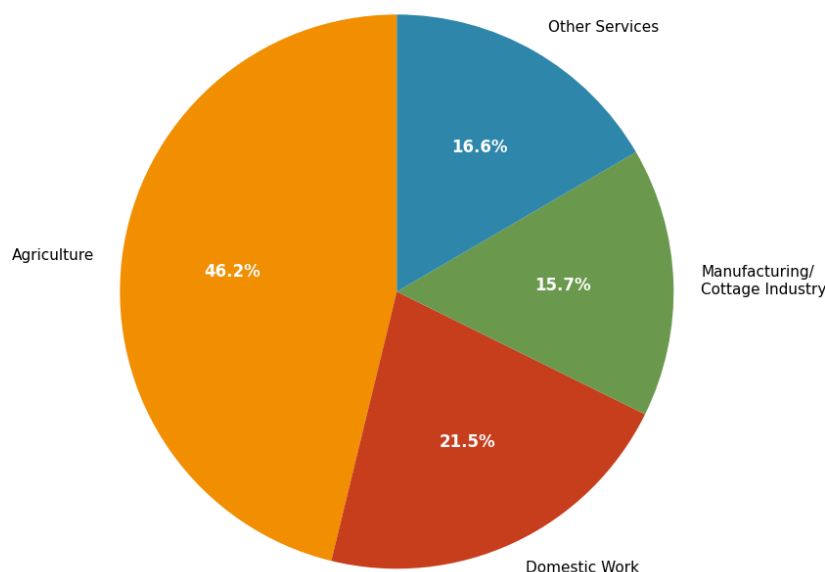


Figure 2: Sectoral Distribution of Child Labour

Figure 2 demonstrates that child labour in Uttar Dinajpur is predominantly concentrated in the agricultural sector, reflecting the district's agrarian economy. This finding aligns with Basu and Van's (1998) observation that rural child labour patterns closely mirror local economic structures.

4.4 Temporal Trends in Enrollment and Child Labour

Analysis of secondary data from DISE reports (2010-2022) reveals positive trends in enrollment following RTE Act implementation (Figure 3).

Figure 3: Trends in School Enrollment and Child Labour Estimates in Uttar Dinajpur (2010-2022)

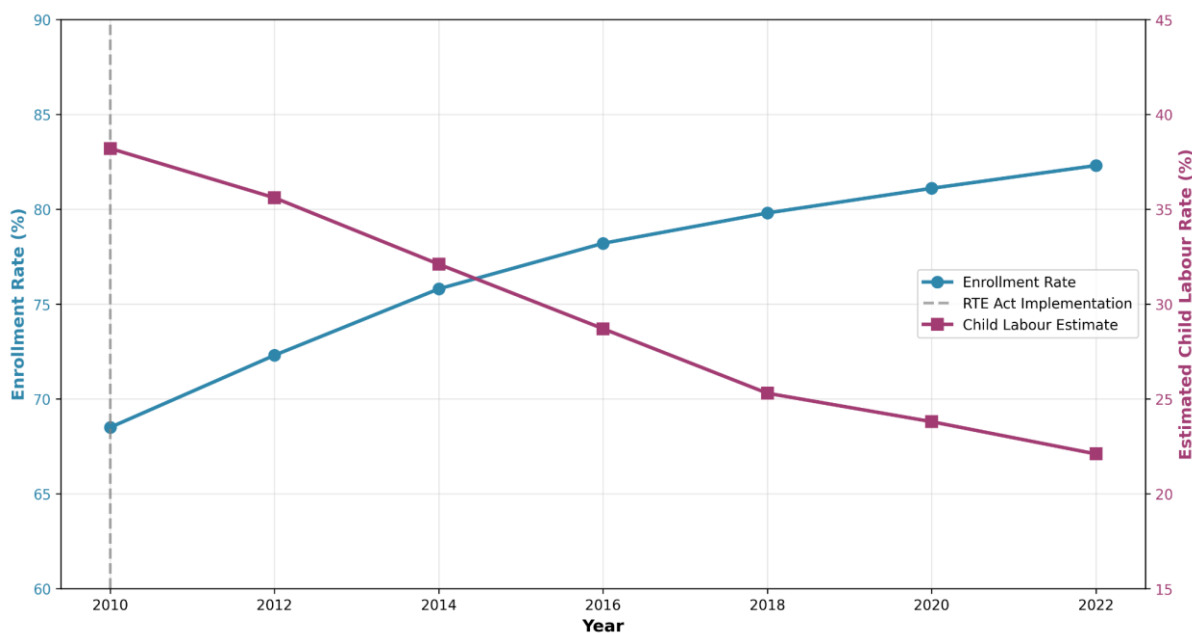


Figure 3: Trends in School Enrollment and Child Labour Estimates

Figure 3 illustrates a positive correlation between increased enrollment rates and decreased child labour estimates over the 12-year period. The enrollment rate increased from 68.5% in 2010 to 82.3% in 2022, while child labour estimates declined from 38.2% to 22.1%. This temporal trend

suggests policy impact, though substantial work remains to be done as indicated by Drèze and Sen (2013).

4.5 Determinants of Child Labour: Regression Analysis

Table 3 presents the results of logistic regression analysis examining factors associated with child labour participation. The model demonstrates good fit (Pseudo R² = 0.412).

Table 3: Logistic Regression Results - Determinants of Child Labour Participation

Variable	Coefficient (β)	Odds Ratio	Std. Error	p-value
Household Income (log)	-0.684	0.504	0.142	<0.001** *
Father's Education (years)	-0.156	0.856	0.048	0.001**
Mother's Education (years)	-0.223	0.800	0.062	<0.001** *
Distance to School (km)	0.312	1.366	0.089	<0.001** *
Household Size	0.187	1.206	0.071	0.009**
Land Ownership (acres)	-0.098	0.907	0.054	0.071
Access to Mid-day Meal	-0.542	0.582	0.198	0.006**
Awareness of RTE Act	-0.471	0.624	0.185	0.011*
Child Age	0.265	1.303	0.067	<0.001** *
Constant	4.234	68.95	1.247	<0.001** *

*Note: ***p<0.001, **p<0.01, p<0.05; N=823; Pseudo R²=0.412

The regression results reveal several significant findings:

1. **Household Income:** A one-unit increase in log household income reduces the odds of child labour by approximately 50% (OR=0.504, p<0.001), confirming Becker's (1964) human capital theory and Basu and Van's (1998) luxury axiom.
2. **Parental Education:** Both father's and mother's education significantly reduce child labour likelihood, with mother's education showing stronger effects (OR=0.800, p<0.001). This aligns with Desai et al. (2010) who emphasized maternal education's role in child welfare decisions.
3. **Distance to School:** Each additional kilometer increases child labour odds by 36.6% (OR=1.366, p<0.001), highlighting accessibility as a crucial implementation barrier noted by Mehrotra (2006).
4. **Policy Awareness:** Awareness of RTE Act provisions reduces child labour odds by 37.6% (OR=0.624, p<0.011), suggesting that information dissemination can enhance policy effectiveness.

4.6 Comparison by Gender

Figure 4 examines gender differentials in school enrollment and child labour participation.

Figure 4: Gender Comparison of School Participation and Child Labour in Uttar Dinajpur

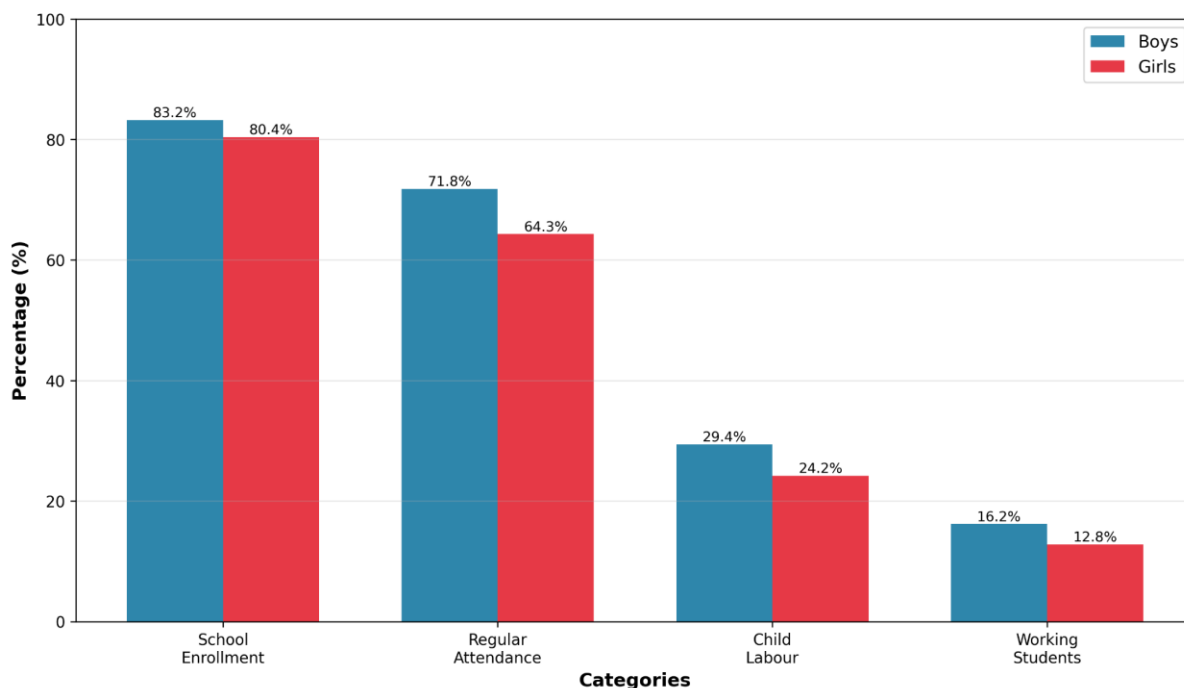


Figure 4: Gender Comparison of Enrollment and Child Labour

Figure 4 reveals gender disparities across all indicators. While enrollment gaps are relatively modest (2.8 percentage points), girls show lower regular attendance (7.5 percentage points difference) and slightly lower child labour participation. However, these differences reflect gendered work patterns, with girls more likely to engage in domestic work that may be underreported (Kingdon, 2007).

5. Discussion

The findings reveal a complex picture of policy implementation in Uttar Dinajpur. While the RTE Act has achieved notable success in increasing enrollment, significant gaps persist between policy promise and local practice.

5.1 Policy Impact Assessment

The 23% increase in enrollment since RTE implementation represents meaningful progress, supporting Govinda's (2011) assertion that rights-based frameworks can drive educational access. However, the persistence of 18.1% non-enrollment and 27.1% child labour engagement indicates substantial implementation deficits. The "working student" phenomenon (14.7% of enrolled children) particularly highlights the inadequacy of enrollment as a sole metric of policy success, as emphasized by Kingdon (2007).

5.2 Socio-Economic Barriers

The regression analysis confirms that poverty remains the primary driver of child labour, consistent with Basu and Van's (1998) theoretical framework. With 54.7% of households below the poverty line, immediate economic needs often override long-term educational investments. This suggests that educational policy alone cannot eliminate child labour without complementary poverty alleviation measures, as argued by Drèze and Sen (2013).

Parental education emerges as another critical factor, creating intergenerational cycles of disadvantage. Low parental education (fathers: 4.2 years, mothers: 2.6 years average) limits both

the perceived value of education and the capacity to support children's learning, reinforcing Desai et al.'s (2010) findings.

5.3 Implementation Challenges

Infrastructure and accessibility issues present significant barriers. The average distance to school (2.3 km) may appear modest but represents substantial obstacles for young children in areas with poor transportation. Teacher availability, quality of education, and school infrastructure—while not directly measured in this study—constitute additional implementation gaps documented by Mehrotra (2006) and Bandyopadhyay and Subrahmanian (2008).

Notably, only 41.3% of households demonstrated awareness of RTE Act provisions, indicating serious information gaps. The significant negative association between RTE awareness and child labour suggests that targeted information campaigns could enhance policy effectiveness.

5.4 Sectoral Patterns

The predominance of agricultural child labour (46.2%) reflects Uttar Dinajpur's agrarian economy and seasonal labor demands. Agricultural work often appears invisible in official statistics and faces weak enforcement, as noted by the International Labour Organization (2017). The substantial proportion engaged in domestic work (21.5%), particularly girls, suggests that traditional gender roles continue to undermine educational participation.

6. Policy Recommendations

Based on the research findings, we propose the following evidence-based recommendations:

1. **Integrated Poverty-Education Interventions:** Link educational incentives with income support programs. Conditional cash transfer schemes that compensate for lost child labor income could reduce economic pressures on poor families.
2. **Enhanced Monitoring and Enforcement:** Strengthen mechanisms to track not just enrollment but regular attendance and learning outcomes. Focus enforcement efforts on high-risk age groups (12-14 years) and sectors (agriculture).
3. **Infrastructure Development:** Prioritize school accessibility in remote areas through transportation support or establishment of satellite schools within 1 km of all habitations.
4. **Awareness Campaigns:** Launch targeted information dissemination about RTE provisions, long-term benefits of education, and legal consequences of child labour. Focus on communities with low education levels.
5. **Quality Improvement:** Address factors affecting retention and regular attendance through improved teaching quality, relevant curriculum, and adequate infrastructure, as recommended by Mehrotra (2006).
6. **Gender-Sensitive Interventions:** Design specific programs addressing girls' participation barriers, including safety concerns, sanitation facilities, and challenging traditional gender role expectations.
7. **Parental Education Programs:** Implement adult literacy and awareness programs to break intergenerational cycles of educational deprivation.
8. **Seasonal Flexibility:** Given the agricultural calendar's influence, consider flexible school timings or calendar adjustments to accommodate seasonal labor demands while maintaining educational continuity.

7. Conclusion

This study demonstrates that while compulsory schooling policies have produced measurable improvements in Uttar Dinajpur, substantial gaps remain between policy promise and local practice. The RTE Act has successfully increased enrollment, but nearly one-fifth of school-age children

remain unenrolled, and over one-quarter engage in child labour. Poverty, parental education, and accessibility emerge as critical mediating factors.

The research contributes to policy evaluation literature by providing granular, district-level evidence on implementation challenges in economically disadvantaged regions. The findings emphasize that legal frameworks, while necessary, are insufficient without addressing underlying socio-economic conditions. Effective child labour elimination requires integrated approaches combining educational policy, poverty alleviation, infrastructure development, and social awareness.

Limitations of this study include cross-sectional design limiting causal inference, potential underreporting of child labour (particularly domestic work), and focus on a single district limiting generalizability. Future research should employ longitudinal designs, examine educational quality and learning outcomes, and conduct comparative analyses across multiple districts with varying socio-economic profiles.

Nevertheless, this research provides valuable evidence for policymakers, demonstrating both progress achieved and substantial work remaining to fulfill the promise of compulsory, universal education and eliminate child labour in rural India.

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