Whose Education Matters for Child Labor and School Enrollment? A Case of Rural Andhra Pradesh, India*

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Abstract

In our previous paper "Child Labor and School Enrollment in Rural India: Whose Education Matters?" (forthcoming in *Developing Economies*), we estimated reduced-form models for the determinants of child labor and school enrollment status in rural Andhra Pradesh, India, and showed that the education of the child's mother is more important in reducing child labor and in increasing school enrollment than that of the child's father, the household head, or the spouse of the head. To deepen the understanding of the intrahousehold resource allocation mechanisms underlying this finding, this paper empirically analyzes the determinants of time use of children based on more structural approaches. For this analysis, we use detailed timeuse data, information to judge whether the household is under a binding credit constraint, and information on extra-household linkages covering pre-marital and parental generation. The last information provides us exogenous sources of variation in bargaining powers within a household. We derive empirical models from a theoretical framework of intrahousehold resource allocation and apply them to this dataset. The results based on a reduced-form approach show that the incidence of child labor or school enrollment is affected by the child's age and sex, the household size, land assets, social classes, and grandparental characteristics. We then estimate more structural models in order to investigate the effect of maternal labor and credit constraints on intrahousehold inequality of labor allocation, paying due consideration to the fact that both maternal labor and credit constraints are endogenous. The results based on a conditional labor supply approach show that when a mother works outside, her domestic labor is more likely to be replaced by daughters than by sons, but the sex contrast in market work by children is not affected much, resulting in a higher work burden on daughters. The estimation results based on an endogenous switching model show that access to credit is a major determinant of the child's time use: children of credit-constrained households spend less hours in school and for leisure but spend more hours working in the house. The regression results from all empirical models support collective household models against unitary models.

Keywords: child labor, schooling, gender bias, credit constraint, household models.

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