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Sweeping It under the Rug: Household Chores and Misreporting of Child Labor.

Eva Dziadula
University of Notre Dame

Danice Guzmán
University of Notre Dame

Abstract

We collect data on child labor in almost 3,000 Nepali households, and our analysis shows that estimates of child labor prevalence vary from 11.6% to 29% with the definition of child labor used. The variation comes from the number of hours worked and from which tasks are considered child labor. Furthermore, we use two different surveys during data collection. In the first, an adult (proxy) reports on the daily activities of each child in the household, and in the second, the children (direct) respond themselves. Proxy and direct responses are less likely to match when the definition includes time spent on household chores, which is typically underestimated for girls. We find that proxy reporting of whether the child worked in the past week is 5.5 percentage points lower than the direct reporting. Within households, misreporting is significantly more likely for girls than for boys. Across households, however, misreporting is associated with child's age, not gender. Furthermore, among girls misreporting is associated with the number of younger children at home. Our analysis helps explain why varying measures of child labor used in the literature yield different results.

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Contact: Eva Dziadula - eva373@gmail.com, Danice Guzmán - dbrown16@nd.edu.

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1. Introduction

Child labor, while socially acceptable in some countries, is illegal and may be harmful to children. An accurate measure of child labor prevalence is crucial to achieving the global goal of ending the practice. However, the existing literature uses varying definitions of child labor (Edmonds, 2009). Some studies limit their definition of child labor to wage work (Psacharopoulos 1997; Ray 2003; Heady 2003), some simply identify all market work as child labor (Ray and Lancaster 2005), and some include domestic chores (Basu, Das, and Dutta 2010; Assaad, Levison, and Zibani 2010; Levison, Moe, and Knaul 2001). While in most countries the minimum age to work is 15, in developing countries such as Nepal, children can work legally at 14. Some research uses the International Labor Organization's (ILO) Statistical Information and Monitoring Program on Child Labor's definition which is based on the type of activity, time spent working, and age of the children (up to 17 if engaged in the worst forms of child labor), while the U.N System of National Accounts defines economic activity as all production, inside and outside of the home, that could be destined for the market, regardless of whether the decision is made to sell or retain for own use. Basu et al. (2008) use an all-inclusive definition of child labor, paid or not paid, and include tasks and chores around the house. They show that children's participation in domestic work or chores, more so than children's engagement in market work, may be the result of imperfections in the adult labor market. Webbink et al. (2012) show that excluding unpaid household work, which they refer to as the "hidden" child labor, underestimates the extent of child labor, and Assaad et al. (2010) emphasize the importance of including domestic activity in the definition of work, showing that it especially burdens girls. In this study, we survey almost 3,000 Nepali households with children and ask about their activities in the past seven days. We find that child labor prevalence ranges from 11.4% to nearly 29%, conditional on which definition is used.

We collect our data using two surveys. The household head (if not available, then a household representative over the age 15) was interviewed first, proxy-reporting on the activities of all members of the household. Then, after obtaining consent, all children in the household were interviewed separately[1], direct-reporting on themselves. While we would like to know how children spend their time year-round, considering the accuracy of recall, we adhered to the standard in the literature and asked about their activities in the past seven days. While previous work has primarily used the proxy response, our study adds to a smaller body of literature that compares both responses and yields mixed results. On one hand, Dammert and Galdo (2013) use large-scale, nationally representative data from Peru and show that for children ages 6 through 14, the proxy (household head) responses appear to underreport child labor. On the other hand, Dillon et al. (2012) conduct a randomized control study in Tanzania and show no difference in proxy reporting (randomly selected person over the age of 15) and direct reporting by children (ages 10 through 15). Even though two surveys come with additional costs, our study aims to add to this literature and provide clarification for future research and policy makers.

We find significant differences in the reporting of child labor by the household respondent and by the children themselves. However, these differences vary with the definition of child labor used, which may explain the mixed findings in existing research. In our data, when the definition

[1] Interviewers were encouraged to speak with children out of earshot of the adults responding to the proxy questionnaire. All interviews were conducted using mobile devices/tablets with pre-programmed survey which minimizes the errors introduced during data transcription.

includes chores, child labor prevalence is significantly lower based on the proxy responses. This is of particular importance for girls, who are likely to carry the burden of household chores.

2. Reporting of Child Labor

First, we compare the prevalence of child labor in our data using three different definitions. Table I Panel A considers any child 5-13 years old who worked for at least one hour in the last seven days as engaged in child labor. We define work as both wage work outside of the home and work done for the household that could be destined for the market, such as time spent cultivating a family plot of land, caring for livestock, collecting water, or fetching firewood. Following Basu et al. (2008) we include chores in this definition of work and show that almost 29% of children report being engaged in child labor, primarily in domestic work. Panel B uses the same age thresholds but excludes chores, which reduces the prevalence of directly reported child labor to below 12%. In Panel C, we use the ILO's definition which also includes older children in hazardous work but excludes chores, resulting in a child labor rate of over 15%. We do not show the comparison to paid labor, as only 3% of the working children in our sample received any wages.

We test whether the directly reported rates of child labor are significantly different from the rates reported by the proxy. Our findings, presented in the third column of each panel, suggest that misreporting is significant only when chores are considered. We cannot tell with certainty whether the parents are underreporting or the children are overreporting.

Table I. Child Labor Prevalence - Proxy versus Direct Response.

	(A) Child labor with chores			(B) Child labor no chores			(C) ILO no chores		
	Direct	Proxy	Diff	Direct	Proxy	Diff	Proxy	Direct	Diff
Child Labor (%)	28.93	23.42	5.51***	11.42	11.67	-0.26	16.39	15.26	-1.13
Ages 5-9	14.33	10.10	4.23***	4.76	4.89	-0.13	5.00	4.72	-0.28
Ages 10-13	44.57	38.55	6.02***	18.88	19.14	-0.26	18.70	17.18	-1.52
Boys	22.08	17.69	4.39***	9.08	9.24	-0.16	13.21	12.23	-0.97
Ages 5-9	11.12	7.89	3.23***	3.25	3.38	-0.13	3.41	3.25	-0.16
Ages 10-13	34.41	29.15	5.25***	15.90	15.68	0.22	14.69	13.46	-1.23
Girls	36.48	29.74	6.74***	14.00	14.36	-0.36	19.82	18.52	-1.30
Ages 5-9	18.02	12.63	5.39***	6.52	6.63	-0.11	6.82	6.41	-0.41
Ages 10-13	55.27	48.35	6.92***	22.00	22.74	-0.74	22.88	21.09	-1.79

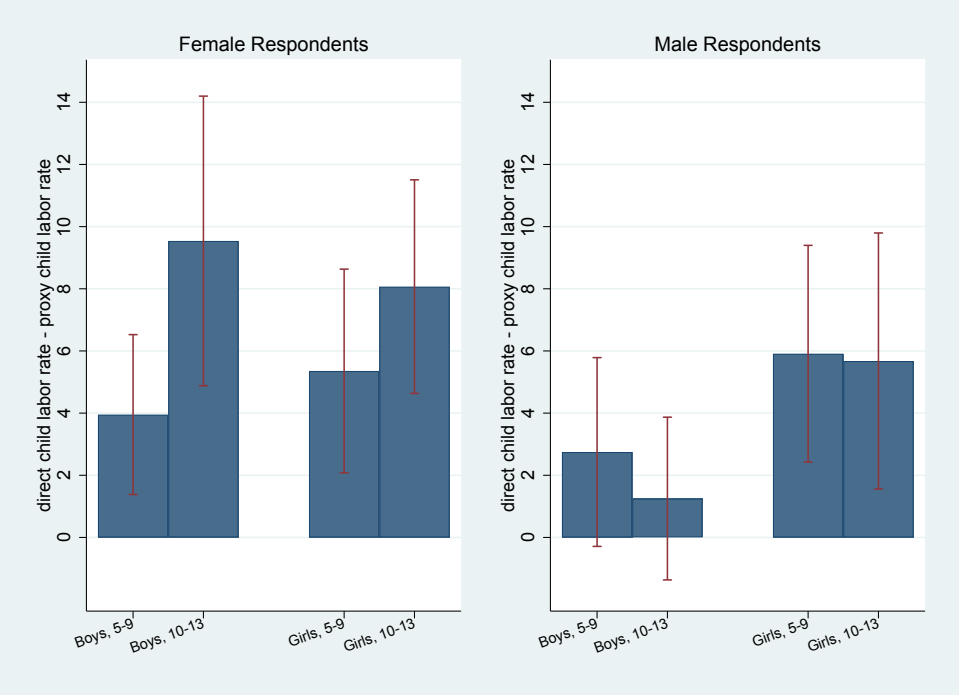
Notes: ** p<0.05, *** p<0.01. Robust standard errors, clustered at the ward level. (A) children 5-13 who worked in or outside of the home for at least an hour in the last seven days (N=3,474), (B) excludes chores (N=3,474), (C) ILO's definition, includes children up to 17 in hazardous work but excludes chores (N=4,954).

Dammert & Galdo (2013) show a larger discrepancy in reporting among younger children, so we test the younger and older children's responses separately. In our case the misreporting is significant for both age groups, although it is more pronounced among older children: 6.02 versus 4.23 percentage points (pp). Moreover, the difference is 6.74 pp for girls compared to only 4.39 pp for boys. When only considering work outside the house, excluding chores (panel B and C), the results are consistent with Dillon et al. (2012), as we do not find any significant differences in the reporting of child labor.

Galdo et al. (2018) attribute the underreporting to child/proxy gender mismatch and they find no reporting differences for boys when the respondent is male. In Figure 1, we explore whether

the consistency in reporting varies by the gender of the respondent in our data. We confirm that the misreporting is indeed weaker among male respondents and boys. The directly reported rate is only 1 pp higher among older boys and approximately 2.5 pp higher among younger boys. However, significant differences of almost 6 pp are observed when men are reporting on girls. Misreporting among female respondents is statistically significant, regardless of the gender of the child, and the difference is especially pronounced among older children. Directly reported rates of child labor are 3.9 to 9.4 pp higher than the rates reported by adult women.

Figure 1. Differences between Direct and Proxy Responses by Gender of the Respondent.



Notes: Bars indicate 95% confidence interval. Robust standard errors, clustered at the ward level. Children 5-13 years old who worked in or outside of the home for at least an hour in the last seven days.

To investigate whether the misreporting is associated with household characteristics, we regress the direct response on the proxy response and test the coefficients from two models—one with basic specifications and a full set of controls and one which includes household fixed effects (FE). The within-household estimates from the FE model are significantly different from the across-household model (table not reported). Therefore, to further explore what characteristics are associated with the misreporting, we regress a mismatch indicator, which equals one if there is a difference between proxy and child response and zero if not[2], on the household characteristics to evaluate the association across households, as well as a household fixed effect model to evaluate within-household dynamics.

[2] The mismatch is almost exclusively where the proxy response is not classified as child labor. In fewer than 2% of the cases is it the opposite direction where the child's response is not classified as child labor. Among the misreported pairs, 50% result from a difference of fewer than 3 hours per week reported by the children, and over 80% fall within 5 hours per week.

Table II. Misreporting of Child Labor: Across and Within-Household Differences.

y = mismatch (0/1)	(A) All		(B) Boys		(C) Girls	
	Across households	Within household FE	Across households	Within household FE	Across households	Within household FE
Girl	0.013	0.043				
	(0.013)	(0.018)**				
Age	0.008	0.006	0.007	0.002	0.009	-0.003
	(0.003)***	(0.007)	(0.004)**	(0.011)	(0.004)**	(0.017)
Number of younger children in household	0.008	0.017	-0.004	-0.011	0.020	0.047
	(0.006)	(0.085)	(0.008)	(0.027)	(0.009)**	(0.040)
Respondent male	-0.004		-0.014		-0.007	
	(0.012)		(0.018)		(0.019)	
R^2	0.02	0.69	0.03	0.83	0.02	0.84
N	3,429	3,429	1,798	1,798	1,631	1,631

Notes: ** p<0.05; *** p<0.01. Robust standard errors, clustered at the ward level. Dependent variable equals one if there is a difference between proxy and child reported classification of child labor. The across household model includes the following controls: proxy's age, male proxy, child female, child's age, household size, number of children in the household, number of younger siblings, female head of household, household head was a child laborer, household owns land, household has a telephone, house has cement walls, household experienced a shock (economic/family/natural disaster) in the past year, religion, proxy's educational attainment, knowledge of minimum legal age to work. In the household fixed effect model: child female, age, number of younger siblings. The coefficients on all remaining controls are not statistically significant, with the exception of proxy's education which appears to be positively related to misreporting in Panels A and B, and Buddhist religion in Panel B.

The results presented in Table II Panel A suggest that gender of the child is not a significant predictor of misreporting across households. However, within a household, girls are significantly less likely to have their work reported by the proxy respondent. The opposite is true for age of the child: the older the child, the more likely the misreporting is across households, whereas the child's age is not a significant predictor within a household. We estimate the model separately by gender in panels B and C. We find that girls are more likely to have their work misreported if there are more younger children in the household. All else constant, the gender of the respondent is not predictive of misreporting across households, contrary to evidence from rural Ethiopia (Galdo, Dammert, and Abebaw 2018), though the magnitude is smaller for boys among male respondents.

3. Conclusion

Recognizing the importance of accurately measuring the prevalence of child labor as societies globally aspire to end it, we administered two surveys in the field. We find significant differences in the reporting of child labor by proxy and by the children themselves when chores are included in the definition of child labor. According to children, 28.93% are working, compared to 23.42% reported by the proxy respondents. One explanation might be that perhaps parents are not aware which children complete the tasks assigned and underestimate the prevalence of child labor, or perhaps children are overestimating their involvement in work or chores. The misreporting appears to be significant for older children, as well as for girls with a higher number of younger children at home across all households. On the other hand, within-household discrepancy in reporting is most likely for girls. Our findings imply that when studying child labor, conducting only one survey may seriously misreport the prevalence. Future research should expand on the determinants of misreporting and child labor, and it should evaluate whether responses to policy interventions may vary with the definition of child labor or survey method used. If prevalence rates differ but policy impacts do not, the need to conduct multiple surveys could be avoided.

References

Assaad, Ragui, Deborah Levison, and Nadia Zibani. 2010. "The Effect of Domestic Work on Girls' Schooling: Evidence from Egypt." *Feminist Economics* 16 (1): 79–128.

Basu, Kaushik, Sanghamitra Das, and Bhaskar Dutta. 2010. "Child Labor and Household Wealth: Theory and Empirical Evidence of an Inverted-U." *Journal of Development Economics* 91 (1): 8–14.

Dammert, Ana C., and Jose Galdo. 2013. "Child Labor Variation by Type of Respondent: Evidence from a Large-Scale Study." *World Development* 51: 207–20.

Dillon, Andrew, Elena Bardasi, Kathleen Beegle, and Pieter Serneels. 2012. "Explaining Variation in Child Labor Statistics." *Journal of Development Economics* 98 (1): 136–47.

Edmonds, Eric V. 2009. *Child Labor*. Edited by T.P. Shultz and J. Strauss. *Handbook of Development Economics,*. Vol. 4.

Galdo, Jose, Ana C Dammert, and Degnet Abebaw. 2018. "Child Labor Measurement in Agricultural Households: Seasonality, Proxy Respondent and Gender Information Gaps in Ethiopia." https://glm-lic.iza.org/wp-content/uploads/2018/06/glmlic-wp043.pdf.

Heady, Christopher. 2003. "The Effect of Child Labor on Learning Achievement." *World Development* 31 (2): 385–98.

Levison, Deborah, Karine S. Moe, and F. M. Knaul. 2001. "Youth Education and Work in Mexico." *World Development* 29 (1): 167–88.

Psacharopoulos, George. 1997. "Child Labor versus Educational Attainment Some Evidence from Latin America." *Journal of Population Economics* 10 (4): 377–86.

Ray, Ranjan. 2003. "The Determinants of Child Labour and Child Schooling in Ghana." *Journal of African Economies* 11 (4): 561–90.

Ray, Ranjan, and Geoffrey Lancaster. 2005. "The Impact of Children's Work on Schooling: Multi-Country Evidence." *International Labour Review* 144 (2): 189–210.

Webbink, Ellen, Jeroen Smits, and Eelke de Jong. 2012. "Hidden Child Labor: Determinants of Housework and Family Business Work of Children in 16 Developing Countries." *World Development* 40 (3): 631–42.