

# Assessing the risk of child labor in Ethiopia

## 4. Results

### 4.2 Exploratory Data Analysis of Outcome Variables

In this section, the distribution for each outcome variable is assessed, as well as the relationships between predictor and outcome variables. All variables in this section are assessed through logistic regression modeling.

#### 4.2.1 Ethiopia Household Level EDA

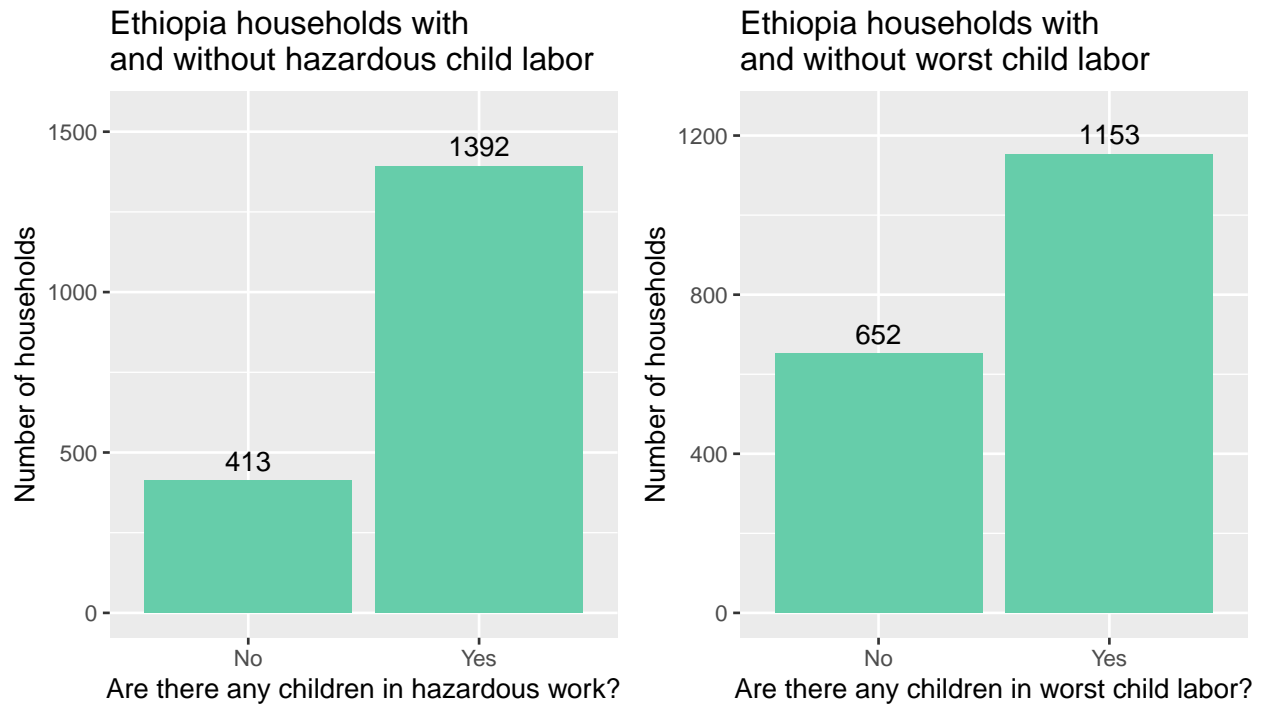


Table 1: Overlap between worst and hazardous labor outcomes for Ethiopia households

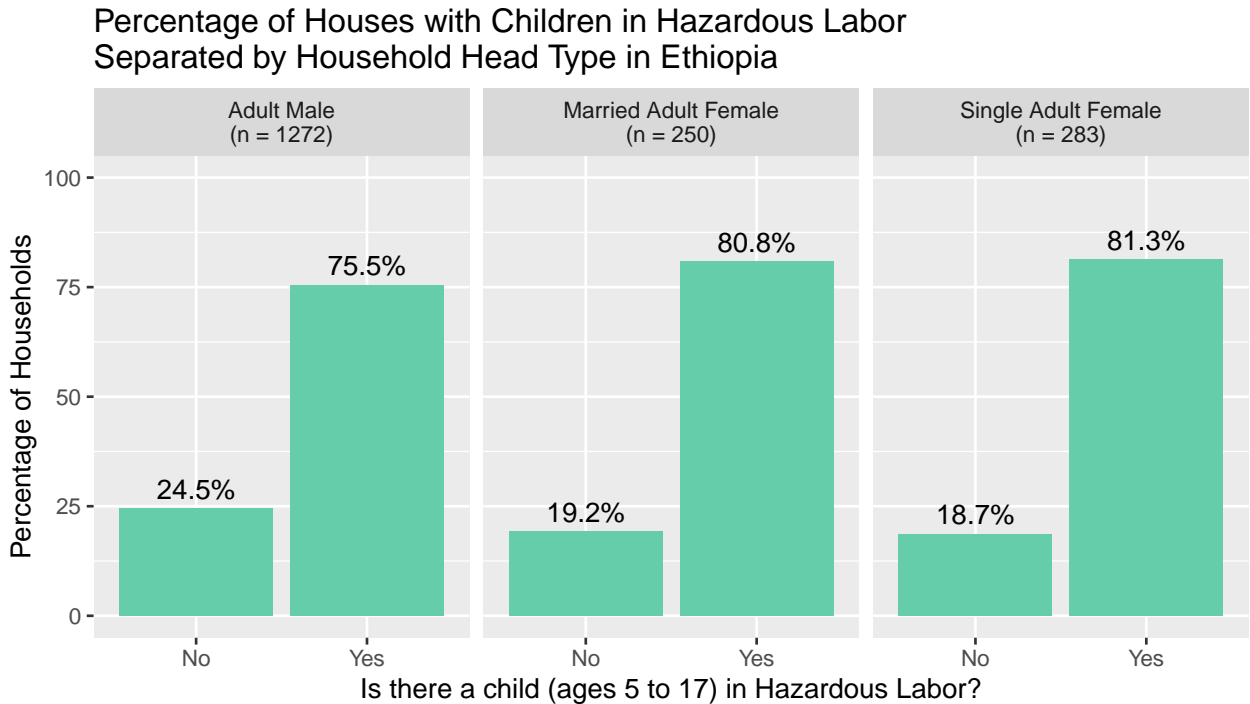
Any children in worst child labor?	Hazardous Labor: Yes	Hazardous Labor: No
Yes	1081	72
No	311	341

#### 4.4.1 Female vs. Male Headed Households

The figure below displays the number of children in hazardous labor per household in Ethiopia, separated by household head. Note instead of a binary indicator of whether or not the house has any children in hazardous work, the exact number of children in hazardous work in the household are shown. The number of observations for each type of household head is displayed as “n”, and instead of counts, the instances of how many houses contain a certain number of children in hazardous labor are displayed as proportions. For example, about 50% of single adult female headed houses have exactly one child in hazardous labor. Looking at these proportions across the three groups, adult male headed houses tend to have no children in hazardous labor at a higher rate than both married and single adult female headed houses.

In fact, 25% of adult male headed households have no children in hazardous labor, meaning that 75% of adult male headed houses have at least one child in hazardous labor. Approximately 80% married adult female headed houses have at least one child in hazardous labor, and the same is true for single adult female headed houses. Among the houses that do have a child in hazardous labor, all household types tend to have only one child in hazardous labor, but adult male headed households proportionally have more households with more than one child in hazardous labor.

When this variable was included in predicting hazardous labor for Ethiopia households, it was found that both married adult female heads and single adult female heads were significant predictors, and associated with higher odds of hazardous labor compared to male headed households. Therefore, there is evidence to suggest that male headed households are associated with lower odds of housing a child in hazardous labor.



The figure below displays the same information except with children in the worst forms of child labor. The majority of all households have at least one child in the worst form of child labor, but adult males proportionally have more households with no children in the worst forms of child labor (with almost 40%) than married and single adult female households, which have 35% and 28% households with no children in the worst forms of child labor, respectively. Therefore, based on this graphic, it appears that female headed households (both married and single) have higher instances of having a child in child labor than adult male headed houses in Ethiopia.

When this parameter was included in predicting worst child labor instances at a household level in Ethiopia, single adult female headed households were significantly associated with increased odds of worst child labor household instances compared to male headed households. However, married adult female headed households were not found to be significantly different than male headed households.

### Percentage of Houses with Children in Worst Child Labor Separated by Household Head Type in Ethiopia

