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ABSTRACT

Child Labor in China*

We present the first systematic study on child labor in China. Child labor is not a negligible social phenomenon in China; about 7.74% of children aged from 10 to 15 were working in 2010, and they worked for 6.75 hours per day on average, and spent 6.42 hours less per day on study than other children. About 90% of child laborers were still in school and combined economic activity with schooling. Our results show that child labor participation is positively associated with school dropout rate. A child living in a rural area is more likely to work. Compared with place of residence, the gender of a child are less important. The educational level of the household head and its interaction with the gender of the household head seem to be unimportant. However, household assets per capita and household involvement in non-agricultural activities are negatively related to the incidence of child labor. A child from a household with more adults is less likely to work. The prevalence of child labor in China exhibits significant regional variations. The child labor incidence is correlated with the development level of each region: the Western region has the highest percentage of child labor, followed by the Eastern and Central region.

JEL Classification: J43, J81, O15

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I. Introduction

Child labor is an important subject both academically and politically worldwide; this topic is also crucial for policy formation, since it has strong implications for the welfare of children and households and for the economy as a whole. A large number of studies show that child labor creates significant adverse effects on the human capital of children. It negatively affects their school enrollment and academic achievement (Heady, 2003; Gunnarsson et al., 2006; Dumas, 2012; He, 2016) and also has adverse effects on the health of children (O'Donnell et al., 2005). Moreover, these negative effects seem to last for a long time; e.g., an adult earns less if she was working during her childhood, even after controlling for educational level (Emerson and Souza, 2011). These negative outcomes for the children inevitably affect the welfare of the households. At the macro level, child labor also has important implications for the long-run growth of developing countries, as human capital is crucial to the development of a country.

In the economics literature, the issue of child labor has drawn considerable attention, especially among development economists. Different aspects have been examined carefully, both theoretically and empirically. From the theory side, the issues of efficiency, labor standards, restrictions on child labor, etc., are subjects of many studies, for example, Baland and Robinson (2000), Ranjan (2001), Tsuyuhara (2014), and Sirohi (2014), among others.

The empirical literature on child labor is even larger. Topics include the effect of parental or household income on child labor (Rogers and Swinnerton, 2004; de Carvalho Filho, 2012), the effect of household wealth on child labor (Bacolod and Ranjan, 2008; Basu et al., 2010; Bouoiyour and Miftah, 2014), how financial development affects child labor (Dehejia and Gatti, 2005), the effects of economic shocks on the incidence of child labor (Beegle et al., 2006), the role of globalization, international trade, and FDI on child labor (Edmonds and Pavcnika, 2005; Davies and Voy, 2009; Zhao et al. 2016), and the importance

of household structure, parental preference, and bargaining power of the mother in the child labor participation decision (Purkayastha, 1998; Reggio, 2011; Kumar, 2013). Edmonds (2008) provides a comprehensive survey of the economics literature on child labor.

However, there is almost no economic study of child labor in China, though, as the largest developing country in the world, China was classified as posing an “extreme risk” of child labor as indicated by Maplecroft’s 2014 Child Labor Index (Maplecroft, 2014).¹ The few exceptions, having other research focuses, mention child labor in China only as a by-product. For instance, Chen (2013) examines the time allocation of children to home production when identifying non-cooperative behavior of Chinese migrant-sending households.

In this paper, we show that child labor is not a negligible social phenomenon in China. Based on the national representative data from the China Family Panel Study, we find that approximately 7.74% of children aged between 10 to 15 years were engaged in labor in 2010.² This percentage was even higher in the relatively poor Western and Central regions and in rural areas. About 90% of child laborers were still in school and combined economic activity with schooling. Children who were involved in labor worked 6.75 hours per day on average, and spent 6.42 hours less per day on study than children who were not. The school dropout rate for the children who were working was 11.57%, and this was 9.6% higher than that for the children who were not working. Our findings differ from those of He (2016), which uses data from Gansu province in 2000. Though He (2016) finds that child labor in that time period has a significant negative effect on a child’s academic achievement, he

¹ After we finished the first draft of this paper, a study, He (2016), on the relationship between child labor and academic achievement using the 2000 data from Gansu province in China comes to our attention. We will discuss this paper later.

² This 7.74% is calculated from the whole children sample (including observations with key missing variables) after adjusting for the sampling weight. The un-weighted percentage is 9.41%. After deleting observations with key missing variables, there are about 7.59% (weighted) and 10.05% (unweighted) of children aged between 10 to 15 years were engaged in labor in 2010.

concludes that child labor is not a big problem in China. The difference between our conclusions and those of He (2016) is partly due to different dataset used. The data used in He (2016) only include children from 9 to 13 years old and only on Gansu province; more importantly, the study sample of He (2016) only includes the children who are still enrolled in school.

In this paper, we intend to present a general picture of child labor in China. Since it is the first systematic study on this issue, we will provide a bird's-eye view instead of focusing on causality from key variables (for example, government policies) to the incidence of child labor in China. Thus, this study is more on correlations than on causality.

More specifically, we will examine child labor participation, working hours, and school dropouts along different important dimensions, such as gender and place of residence. Through regression analyses (linear probability model, tobit model, and Heckman selection model), we aim to understand the correlations of the likelihood of child labor (working hours) with key variables, including characteristics of children, households, and household heads. We will also explore the relationship between child labor and school dropouts.

Our results show that child labor participation is positively associated with the dropout rate. A child living in a rural area is more likely to work.³ Compared with place of residence, the gender of a child are less important. The educational level of a household head and its interaction with the gender of the household head seem to be unimportant. However, household assets per capita and household involvement in non-agricultural activities are negatively related to the incidence of child labor. A child from a household with more adults is less likely to work.

³ After controlling for a child living in a rural area or not, the *hukou* status becomes unimportant, since place of residence and *hukou* are highly correlated.

The prevalence of child labor in China exhibits significant regional variations. The child labor incidence is correlated with the development level of each region: the Western region has the highest percentage of child labor, followed by the Eastern and Central region.

When we expand the definition of child labor to include household chores and taking care of family members, we find that, in contrast to working hours, living in urban areas is significantly and positively correlated with child time spent on household chores. Neither per capita household assets nor household involvement in non-agricultural activities is significantly related to child time spent on household chores and taking care of family members in general, but girls spend significantly more time on those tasks than boys.

The remainder of this paper is organized as follows: Section 2 describes the data used, discusses the definition of child labor, and provides a first look at child labor in China. Section 3 investigates child labor participation, working hours, and the relationship between child labor and school dropouts through regression analyses. Section 4 examines child time allocation to household chores and taking care of family members. We conclude this study in Section 5.

II. Data and a First Look at Child Labor in China

1. The China Family Panel Studies

The data set used in this paper is from the China Family Panel Studies (CFPS). The CFPS, funded by the Chinese government, is a nationally representative longitudinal survey conducted by the Institute of Social Science Survey of Peking University. The CFPS was formally launched in 2010 after several years of pre-testing, and has collected rich information on communities, families, and individuals.

In this study, we use the first wave, i.e., the baseline survey of the CFPS in 2010. It covers 25 provinces, and these provinces host 95% of the Chinese population.⁴ The sampling of the CFPS is based on a three-stage random process and is designed to be nationally representative. The primary sampling unit is the administrative district or county, the second-stage sampling unit is the administrative village or community, and the final stage is the household. The first wave, including 14,960 households and 42,490 individuals, covers both urban and rural China. The baseline data was collected through face-to-face interviews with computer-assisted personal interviewing technology.

For the purpose of our study, we restrict our analysis to children aged between 10 and 15 years (inclusive). The CFPS has a child module, which collects detailed information on the education, working experience, time use, interpersonal communications, daily life, health, and personal experience of children aged between 10 and 15 years in both urban and rural areas. More specifically, the time use of children is divided into six categories: personal life (including sleep, meals, personal hygiene, household chores, and taking care of family members); individual work; study; entertainment and social activities; transportation; and other. Individual work, which refers to work outside of the household for pay (cash or in kind), work in agriculture for the household, and work in a household business, enables us to define the *child labor* indicator in this paper. Thus, the CFPS provides us a unique opportunity to study child labor in China. For detailed information on the CFPS, refer to Xie (2012).

2. Definition of Child Labor

There is no consensus regarding the definition of child labor in the literature. Most studies adopt a stringent definition and define child laborers as children in wage work. Some

⁴ “Provinces” here include provinces, provincial-level municipalities, and provincial-level autonomous regions (excluding Hong Kong, Macao, Taiwan, Xinjiang, Tibet, Qinghai, Inner Mongolia, Ningxia, and Hainan).

researchers define them as children who engage in economic production.⁵ A few researchers define child labor as all non-school and non-leisure activities of children. From this perspective, child labor would include domestic chores, such as cooking, home cleaning or caring for family members. The definition officially employed by the International Labor Organization's (ILO) depends on whether the work is harmful to a child's health or development, regardless of whether this work is economic or non-economic, market or non-market.

The term "child labor" is often defined as work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development.

– *"What is child labor?" International Labor Organization, 2012.*

Partly because of controversy over what types of activities can be considered harmful, the definition of child labor employed by the ILO's Statistical Information and Monitoring Program on Child Labor (SIMPOC) has varied over time (Edmonds, 2008). For more detailed discussion on the definition of child labor, we refer to Guarcello et al. (2005) and Edmonds (2008).

Household chores as well as taking care of family members are unlikely to be harmful to a child's health or development, and do not affect school attendance. Thus, in this paper, we mainly focus on work outside the household for pay (cash or in kind), work in agriculture for the household, and work in a household business. More specifically, we code any child with positive time in the work category as a child laborer, and also construct the variable

⁵ The production of economic goods and services is classified under the United Nations System of National Accounts (SNA). According to the SNA, "the production of economic goods and services includes all production and processing of primary products whether for the market, for barter, or for own consumption, the production of all other goods and services for the market and, in the case of households which produce such goods and services for the market, the corresponding production for own consumption".

working hours from this category alone. Nevertheless, to consider as a wide range of activities as the data permit, in Section 4 we also investigate factors associated with child time allocation to household chores and taking care of family members.

In general, the minimum age of employment is 15 years old, which is the minimum age of completion of compulsory schooling (ILO, 1973). In China, three relevant laws, namely, the Labor Law of the People's Republic of China (Article 15), Regulations Banning Child Labor (Article 2) and the Law of People's Republic of China on the Protection of Minors (Article 28), stipulate that state organs, social bodies, enterprises, institutions, non-governmental not-for-profit organizations and private businesses are prohibited from employing children under the age of 16.⁶ Employment of children under the age of 16 is referred to as using child labor. Employers who use child labor shall be fined by the labor protection authorities at the rate of 5000 yuan per month for each child laborer used (Regulations Banning Child Labor, Article 6). Additionally, adolescent workers (aged from 16 to 18) are protected from any over-strenuous, poisonous or harmful labor or any dangerous operation by the Law of People's Republic of China on the Protection of Minors (Article 28). Thus, in this study we restrict our sample to children aged between 10 and 15 years.

3. A First Look at Child Labor in China

In this part, we provide first look at child labor in China based on the study sample in the paper.⁷ Figure 1 presents the prevalence of child labor in China. Panels A and B examine child labor incidence by residence (urban or rural area) and *hukou* type (urban or rural)

⁶ Units of literature and art, physical culture and sport, and special arts and crafts that need to recruit juveniles under the age of 16 must go through the formalities of examination and approval according to the relevant provisions of the State and guarantee their right to compulsory education.

⁷ All results in this part are not adjusted for sampling weight, since the sampling weight by age group is not available.

separately. The graphs in these two panels are quite similar. Generally speaking, the trend in incidence of child labor is increasing with age: at age 10, approximately 10% of children are engaged in child labor, and this percentage increases to about 12% at age 15. At all age levels, the children living in rural areas or having a rural *hukou* are considerably more likely to work; the rural-urban gap is as large as 6-9%.

[Figure 1 about here]

In Panel C, we examine regional patterns of child labor incidence. Overall, the incidence of child labor is negatively correlated with regional economic development. More specifically, the Western region, which is the poorest part of China, has the higher percentage of children engaged in child labor, and the Eastern and Central region, the more developed part, has the lower incidence of child labor. In Panel D, we investigate the gender differences in the incidence of child labor. At earlier ages, girls are more likely to work, but this is reversed at age 11. The gender difference in the incidence of child labor is negligible after age 12. Overall, the gender difference is not as striking as the rural-urban difference or regional differences.

The detailed time allocation for child laborers and non-child laborers is reported in Table 1. We mainly focus on two types of activities: work and study. On average, the child laborers work 6.75 hours per day, which is equal to the amount for a full-time worker. The child laborers spend about 2.0 hours per day on study, compared with 8.4 hours for children who are not laborers. There is a strong tradeoff between hours worked and hours studied. In other words, most of the working hours of child laborers come from the time which would have been spent on study had they not had to do market or domestic work. There are also some differences in time allocation for remaining activities; for example, child laborers spend more time on household chores and taking care of family members, but less time on leisure and transportation. However, the differences are not as striking as the differences in

hours of work and study. When we look into the gender and the residence dimensions, the time allocation difference between child laborers and non-child laborers remains.⁸

[Table 1 about here]

In order to better understand child labor in China, we further divide children's activities into four categories: economic activity only; school only; combine economic activity and school; and neither school nor economic activity. Table 2 reports the proportion of children in each category. About 90% of child laborers in China are still in school and combine economic activity with schooling, though they spend much fewer hours on study. Only 40% of children who drop out of schools participate in child labor. Approximately 1.7% of children are neither in school nor in economic activity. Table 2 also shows that these patterns do not differ across gender and residence.

[Table 2 about here]

Since child labor participation so greatly displaces study time as shown in Table 1, we investigate the relationship between child labor and school attendance further in Figure 2. In Panel A, we compare the school dropout rate between child laborers and non-child laborers. We find that the dropout rate for child laborers is considerably higher than the rate for non-child laborers, especially for children aged above 14 years. At age 15, the dropout rate for child laborers is as high as 40%, compared with 5% for the non-child laborers.

From Panels B to D, we focus on child laborers alone. Panel B shows that there is no difference in the dropout rate between girls and boys before age 12, but the rate for girls is higher than that for boys after age 12. Panel C divides the child laborers by their place of residence. For the child laborers younger than 14, the dropout rate in rural areas is higher than that in urban areas, but the gap between rural and urban areas narrows after age 14; e.g.,

⁸ The time allocation results by gender are available from the authors upon request.

for the child laborers aged 15, the dropout rate is around 40% in rural areas and 35% in urban areas. Panel D investigates whether the dropout rate differs by the *hukou* status of the child laborers. We find that for the child laborers with urban *hukou*, their dropout rate is almost zero (see the dashed line, which is almost coincident with the horizontal axis). Almost all the school dropouts are from the child laborers with rural *hukou*.

From Panels C and D, we find that the school dropout rate increases sharply from age 14 to age 15. One possible explanation is that the 9-year compulsory education system in China requires that all children must attend school for a minimum of 9 years, including 6 years of primary education and 3 years of junior high school education, and a child is likely to complete her junior high school education between ages 14 and 15. Children who have completed junior high school education are more likely to drop out of school.

[Figure 2 about here]

4. Summary Statistics of Other Variables

As discussed before, we restrict our study sample to children aged from 10 to 15. After deleting the children that have missing values on key variables, we have 2,407 children in our final sample, among whom 242 (about 10%) participated in market or domestic work.

Table 3 shows the summary statistics for the main variables used in this paper. The percentage of children engaged in child labor in our study sample is 10.05%. The school dropout rate is significantly higher for child laborers (11.57%) than that for non-child laborers (1.94%). Additionally, the child laborers are more likely to be older, to live in rural areas, to have a rural *hukou*, and to reside in the Western region. The differences in gender and ethnicity between these two child groups are, however, small.⁹

⁹ *Han* is the largest ethnic group in China and accounts for more than 90% of the Chinese population.

[Table 3 about here]

There is no significant difference in age and gender of household head between child laborers and non-child laborers. However, child laborers tend to come from households with less educated household heads. Moreover, child laborers are less likely to come from households involved in non-agricultural activities and from households close to a high school. The assets per capita of a household with child laborers are significantly lower. Interestingly, child laborers are less likely to come from villages or communities with a higher proportion of adults who pay attention to news about law enforcement.

III. Child Labor Incidence, Working Hours, and School Dropouts

In this section, we examine the child labor incidence, working hours, and school dropouts through regression analyses. Since in the previous section we found that the prevalence of child labor is similar along the residence dimension and along the *hukou* dimension, and the school dropout rate for child laborers with urban *hukou* is almost zero, when we study the rural-urban difference in child labor incidence, we focus on children living in rural or urban areas rather than on having rural or urban *hukou*, for one of our focuses is on child labor and school dropouts.

We should emphasize that since this is the first systematic study on child labor in China, we intend to provide a general picture instead of focusing on causality from some key variables (for example, government policies) to the incidence of child labor; thus the goal of this study is more on correlations than on causality. Undoubtedly, causal analyses are very important and can provide more insights for policy formulations. We are identifying and carrying out cause-effect analyses of child labor in our current and future research; for example, in a related recent study, Zhao et al. (2016) investigate the causal linkage between trade liberalization and child labor in China.

1. Child Labor Incidence

First, we explore how the characteristics of children, households, and household heads are associated with the incidence of child labor. The dependent variable here is a binary variable that equals 1 if a school-aged child engages in child labor. Individual characteristics include the gender, age, ethnicity, *hukou* type, residence, and health status of children. Household characteristics include log household assets per capita, the number of adults, the number of children under age 18, whether a household is involved or partly involved in any non-agricultural industry, and the geographical location of the household. We also control for the characteristics of household heads, such as gender, age, and education. To study the relationship between child labor participation and a host of characteristics, we rely on a linear probability model here.

Table 4 reports the main results for the full sample, and separately for rural and urban children (defined by their place of residence) and for girls and boys. A child living in urban areas is about 4.5% less likely to be a child laborer for the full sample and for boys and girls separately. This is consistent with the findings of Fafchamps and Wahba (2006), which show that children living in or near urban centers work less. Han nationality of a child is significantly associated with 5.44% increase in the incidence of child labor, and this correlation is driven by the subsample of rural children and boys. The coefficient of the gender of children is small and insignificant. The *hukou* status of children is also insignificant. One possible reason for the insignificance of *hukou* is that *hukou* variable and the residence variable are highly correlated, a large part of the effect from *hukou* was captured by the residence variable, and this collinearity increases the standard error of *hukou* greatly. We also find that the children's health is negatively associated with child labor participation.

[Table 4 about here]

Besides the above children's characteristics, which have a strong relationship with child labor participation for the full sample and for different subsamples as well, there are some characteristics of children that exhibit different relations with child labor incidence in different subsamples. Compared with a girl with only her father alive, a girl with both parents alive is 29.08% less likely to be a child laborer. However, a child with both parents alive is more likely to be a child laborer if the child is in an urban area. Perhaps children who migrated with their parents to an urban area are more vulnerable to child labor. It would be interesting to explore the reasons behind these variations across different groups of children.

Now we turn to the characteristic of household heads. The age and gender of household heads are not significantly associated with the incidence of child labor. Additionally, the coefficients for the educational level of household heads and for the interaction between the educational level and the gender of household heads seem to be insignificant. Fafchamps and Shilpi (2014) also find that the association between mother's education and children's welfare is not strong either.

Household characteristics are important factors associated with child labor participation, as the child labor decision is usually made at the household level. In order to avoid the endogeneity problem caused by child-work-associated income, we control for household assets per capita instead of household income per capita in the paper. We find that household assets per capita is significantly and negatively related to the incidence of child labor, especially for boys and children in urban areas. The coefficients for a family's being in debt in the previous year are all negative (though insignificant), indicating that these families may be willing to borrow instead of sending their children to work. Whether a household is involved in non-agricultural activities is significantly and negatively associated with the incidence of child labor for the full sample, but insignificant for all the subsamples.

In general, one additional adult in the household decreases the incidence of child labor by about 3.62%. This is reasonable in that the more adults a household has the less likely it is to be short of labor. The number of children under age 18 in a household seems to have a nonlinear relationship with the incidence of child labor. Specifically, the child labor participation rate is negatively correlated with the number of children when the number of children is below 1.7. The child labor incidence increases with the number of children when the number of children is above 1.7. The result of the negative correlation is consistent with the findings of Qian (2009), which show that having a second child increases the school enrollment rate of the firstborn child because of economies of scale in schooling. The positive correlation may be due to the household's resource constraint.

Compared with children in the poorest (Western) region, children in the richer and more developed Middle and Eastern regions are less likely to work. Taking the full sample as an example, a child in the most developed (Eastern) region or in the relatively developed (Central) region is 11.33% or 13.62% less likely to be a child laborer, respectively.

2. Working Hours

Now we go one step further to examine the working hours of children. In order to analyze the number of hours worked by children, we apply a censored regression model, i.e., tobit model, and a two-stage Heckman selection model, which allows us to correct for selection bias.

2.1 Tobit Model and McDonald and Moffitt's Decomposition

Since a substantial proportion of children are observed with zero hours of working, we use a tobit model in this analysis, and examine the same set of independent variables as in Table 4. Table 5 presents the results from tobit analysis. For all groups, living in urban areas is associated with a significant decrease in working hours. Han nationality of a child is significantly associated with an increase in working hours of children for the full sample and

for all subsamples except girls. Again, the rural *hukou* status of children becomes insignificant here after controlling for the place of residence.

[Table 5 about here]

An older household head is related to an increase in the working hours of boys and children in urban areas. Neither the education of household heads nor its interaction with the gender of household heads is significantly correlated with working hours of children.

Per capita household assets and household involvement in non-agricultural activities, both of which capture the wealth of a household, are negatively associated with working hours of children. As before, the coefficients for whether the family was in debt last year are negative. There is a U-shaped relationship between the number of adults in a household and the working hours of children. Specifically, the working hours decline with the number of adults when the number of adults is smaller than 5. And urban children and girls benefit most from a larger number of adults in the household. Like child labor participation, regional disparity is also important for understanding the working hours of child labor.

Because a majority of children are not working, the characteristics of children, households, and household heads may be associated with working hours on the extensive margin (the participation of children in the labor market) but not on the intensive margin (working hours conditional on working). Next, we apply McDonald and Moffitt's (1980) decomposition based on the tobit model to understand the associations on these two margins.

Table 6 reports the decomposition results for the full sample.¹⁰ Living in urban areas and Han nationality are positively associated with working hours on both the extensive and the intensive margin. Living in urban areas is associated with a 5.2% lower likelihood of working and 0.62 more working hours conditional on working. A Han child is 4.7% more

¹⁰ The decomposition results for subgroups are available upon request.

likely to work on the extensive margin and works 0.56 hours more on the intensive margin than a minority child. However, the gender, age, and *hukou* type of children are not important characteristics significantly associated with working hours.

[Table 6 about here]

The age and gender of household heads are, in general, not significantly associated with working hours of children on both margins. The coefficients of the educational level of household heads alone and its interaction with the gender of household heads are all insignificant. With regard to the characteristics of households, household assets per capita and household involvement in non-agricultural activities are negatively related to working hours of children.. However, the number of adults seems to be unimportant for the full sample.

The results from the decomposition exercises also show considerable regional variations in child labor. Child laborers in the relatively rich areas are 9.38% to 12.46% less likely to engage in child labor, and they work 1.11 to 1.48 hours less if they work.

2.2 Heckman Selection Model

Hours worked by children can arise from two different decisions: a participation decision and a decision of how many hours to work per day. To address the selection problem, we apply the Heckman selection model in this section. In China, the minimum legal working age is 16, set by laws and regulations of the People's Republic of China as discussed previously. Parents and other guardians are prohibited from sending their children under the age of 16 to work. Thus, children from households with high levels of legal awareness are less likely to engage in child labor. However, the level of legal awareness tends not to be associated with the number of hours worked by children conditional on working. To avoid potential endogeneity problems, we can apply the legal awareness of neighbors, proxied by the share of adults paying attention to news about law enforcement in a village or community

(excluding own households), as an exclusionary variable, which affects whether a child engages in child labor but not the amount of working hours.

We report the results of the second stage of Heckman selection model in Table 7 and first stage in Appendix Table 1. The share of adults paying attention to news about law enforcement in a village/community (excluding the child's own household) is significantly and negatively associated with the child labor participation except for boys and rural children. The results of the second-stage regressions suggest that only the place of residence, age of children, and *hukou* type are significantly correlated with working hours of children. However, the coefficients of the inverse Mills ratio are found to be insignificant in all second-stage regressions, which indicates that selectivity bias may not be a serious problem.

[Table 7 about here]

3. Child Labor and School Dropouts

As the number of hours in a day is fixed, there is a tradeoff between hours worked and school attendance. A large number of studies find that child labor has adverse effects on school attendance of children (e.g., Psacharopoulos, 1997; Ray, 2003).¹¹ In China, all children must attend school for at least 9 years, under what is known as the 9-year compulsory education system. It includes 6 years of primary education, usually starting at age 6, and 3 years of junior high school education for ages 12 to 15. Thus, according to the Compulsory Education Law of the People's Republic of China (1986), all children in our study are required to enroll in schools. Nevertheless, approximately 2.9% of children drop out of schools in our study sample. In this section, we explore the association between child labor participation and school dropout in the context of China.

¹¹ He (2016) also finds that child labor negatively affect a child's academic achievement, using data from Gansu province in China.

The results are presented in Tables 8 and 9. The dependent variable in both tables is school dropouts. The variables of interest are child labor participation and working hours of children in Table 8 and Table 9, respectively. Child labor participation is significantly associated with a higher school dropout rate, and the correlation is stronger for rural children and for girls. The results in Table 9 suggest that working hours of children have a similar relationship with school dropout rate.

Next, we examine the characteristics of children. The school dropout rate does not differ significantly across the residence and the gender of school-aged children. However, boys are less likely to dropout in rural areas. Han nationality is significantly associated with lower school dropout rate. There is a nonlinear relationship between the age of children and the school dropout rate. The dropout rate is at its minimum when a child reaches the age of 11. After age 11 the dropout rate increases with the age of children. Rural *hukou* is only significantly related to higher dropout rate for rural children. The presence of parents is associated with lower dropout rate in general.

[Table 8 about here]

[Table 9 about here]

A male household head is significantly related to an increase in school dropout rate. However, neither the educational level of the household head nor its interaction with the gender of the household head is significantly associated with school dropout rate. Household wealth, measured by household assets per capita and household involvement in non-agricultural activities, seems not to be significantly related to the dropout rate. Neither coefficients of the number of children nor coefficients of the number of adults are significant. There are also significant regional differences in the school dropout rate.

IV. Household Chores and Taking Care of Family Members

As discussed in Section 2.2, there is no consensus regarding the definition of child labor in the literature. In this paper, we mainly focus on work outside the household for pay (cash or in kind), work in agriculture for the household, and work in a household business. However, only focusing on a limited set of activities can bias our understanding of child time allocation. In this section, we further investigate child time allocation to household chores and to taking care of family members, respectively. Household chores refer to any unpaid labor for the final consumption of one's family or oneself, such as preparing food, housecleaning, putting clothes and other items in order, and shopping. Taking care of family members refers to taking care of old, young, sick, paralyzed, or pregnant family members without getting paid.

The dependent variables are hours spent per day on household chores and taking care of family members, in Table 10 and Table 11, respectively. As a large fraction of children have values of zero for the time spent on household chores and caring for family members, we apply the tobit model here. In contrast to working hours, the results in Tables 10 and 11 indicate that living in urban areas is significantly and positively correlated with child time spent on household chores; however, it is not significantly related to child time on taking care of family members. Girls spend significantly more time on doing household chores and taking care of family members than boys. Overall, neither household assets per capita nor household involvement in non-agricultural activities is significantly associated with child time spent on household chores and taking care of family members. However, a child from a household that was in debt in the previous year spends more time on taking care of family members. The number of children under 18 is associated with more time spent on household chores and caring for family members. Compared to children in the Western region, children

in the Central and Eastern regions spend less time on household chores and taking care of family members.

[Table 10 about here]

[Table 11 about here]

The results in Tables 10 and 11 indicate that child time spent on household chores and taking care of family members is not significantly associated with the same variables as child time spent on working. Thus, it is inappropriate to pool the hours on non-school and non-leisure activities together in the analysis. In this paper, we investigate different time-use categories separately.

V. Conclusion

There is a long history of research on child labor in economics, and the related economics literature is large. Existing literature consistently shows that child labor has many adverse effects on health and educational achievement of children. These adverse outcomes for the child laborers inevitably affect the welfare of the household, and have important implications for the growth and development of a country. However, there is almost no study on child labor in China, which is surprising, given that China is the largest developing country in the world. However, even after more than 30 years of high-speed economic growth, child labor is still not a negligible social phenomenon in China: about 7.74% of the children aged from 10 to 15 were engaged in child labor in 2010. This percentage was even higher in the Western and Central regions and in rural areas. Most child laborers were still in school and combined economic activity with schooling. The children who were working worked an average of 6.75 hours, and spent 6.42 hours less on study, per day. This highlights the importance of studying child labor in China.

In this paper, we examine a series of variables associated with child labor participation, working hours, and school dropouts, including characteristics of children, households, and household heads. We also investigate the correlations for different groups, e.g., classified by residence or by gender.

Our results show that child labor participation is positively associated with the school dropout rate. A child living in a rural area is more likely to work. Compared with the place of residence, the gender of a child is less important. The incidence of child labor increases with age, but the increase is small; the school dropout rate experiences a sharp increase from age 14 to age 15. A possible reason is that the 9-year compulsory education system in China requires that all children must attend school for a minimum of 9 years, including 6 years of primary education and 3 years of junior high school education, and a child is likely to complete her junior high school education between ages 14 and 15. Children who have completed junior high school education are more likely to drop out of school.

The educational level of a household head and its interaction with the gender of the household head seem unimportant. However, a child from a household with higher household assets per capita or more adults is less likely to work.

The prevalence of child labor varies widely across regions in China. The child labor participation rate is negatively associated with regional economic development: the Western region has the highest incidence of child labor, followed by the Central region. We also find that child labor participation is positively associated with school dropouts.

When we expand the definition of child labor to include household chores and taking care of family members, we find that in contrary to working hours, living in urban areas is significantly and positively correlated with child time spent on household chores. Neither per capita household assets nor household involvement in non-agricultural activities is

significantly related with child time spent on household chores and taking care of family members in general, but girls spend significantly more time on those activities than boys.

In this paper, we present the first systematic study on child labor in China, and provide a bird's-eye view. Undoubtedly, causal studies, such as those involving some key variables (for instance, the effects of public policies on child labor incidence in China), are very important and can provide more insights for policy formulations. Thus, we are identifying and carrying out cause-effect analyses of child labor in the follow-up research.

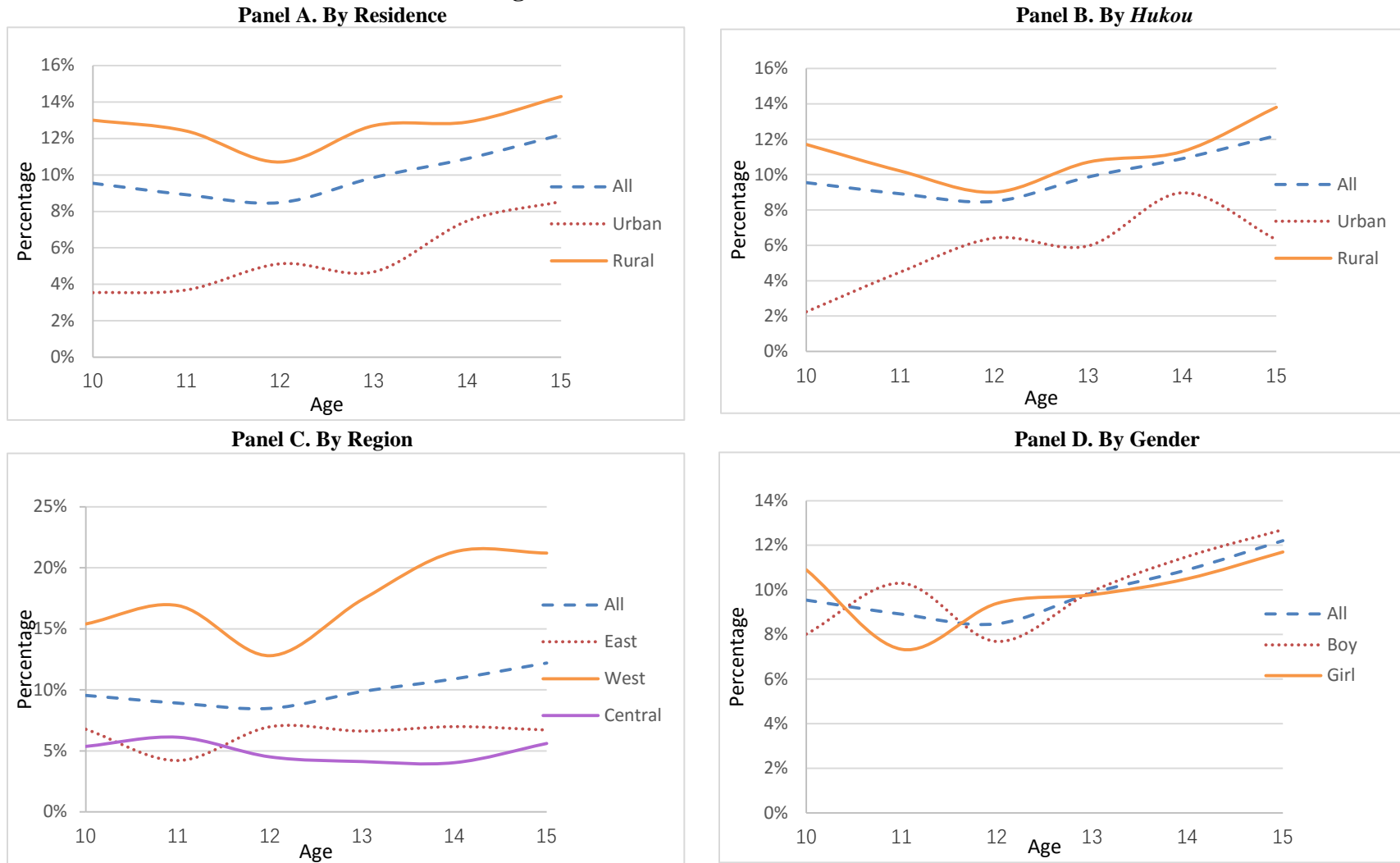
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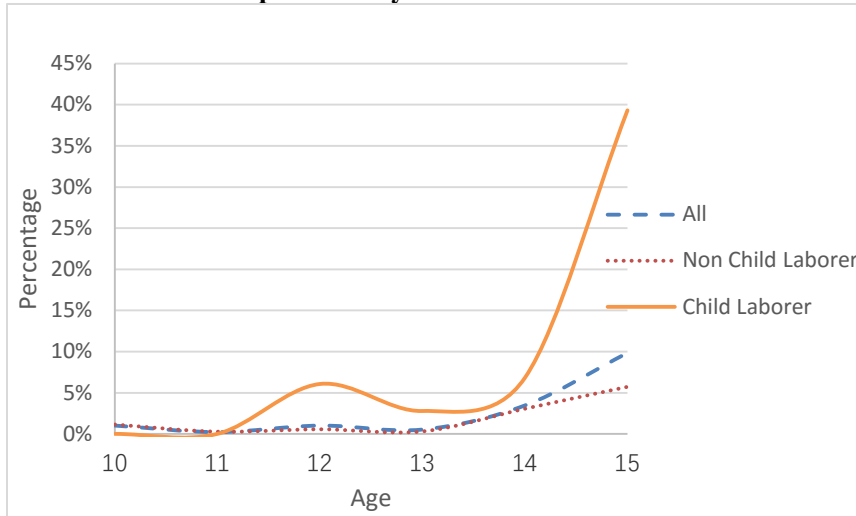
Figure 1. The Prevalence of Child Labor



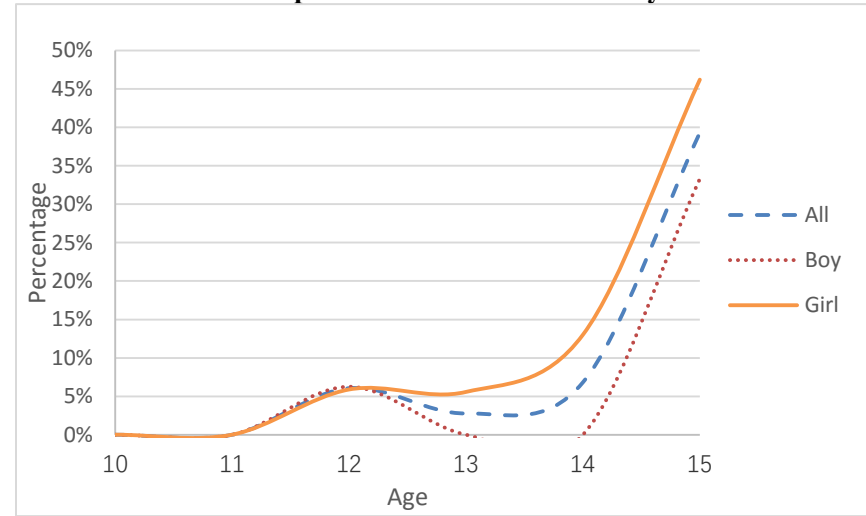
Notes: 1. Authors' calculations based on the 2010 wave of the China Family Panel Study. Only observations in the regression analysis are included.
 2. The definition of child labor is as in note 2 in Table 1.
 3. The Eastern region includes Beijing, Tianjin, Hebei, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong and Guangdong; the Central regions includes Shanxi, Jilin, Heilongjiang, Anhui, Jiangxi, Henan, Hubei and Hunan; and the Western region refers to Sichuan, Chongqing, Guizhou, Yunnan, Shaanxi, Gansu and Guangxi.

Figure 2. School Dropout Rate

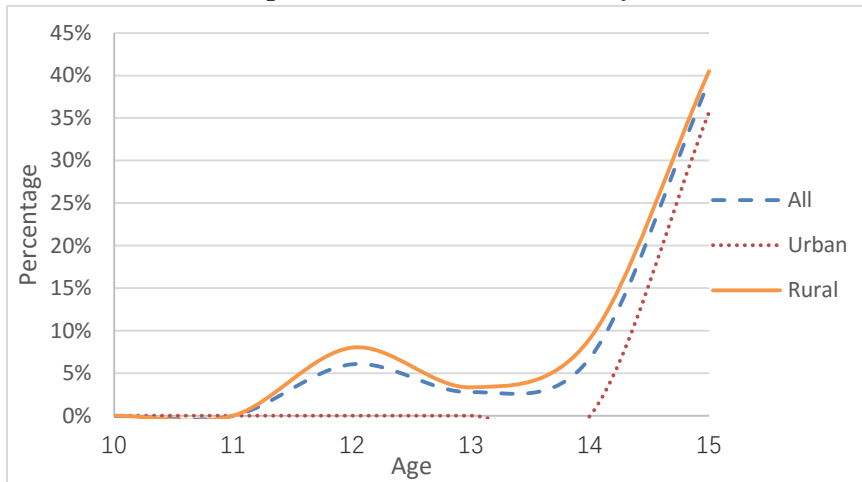
Panel A. Dropout rate by Status of Child Laborer



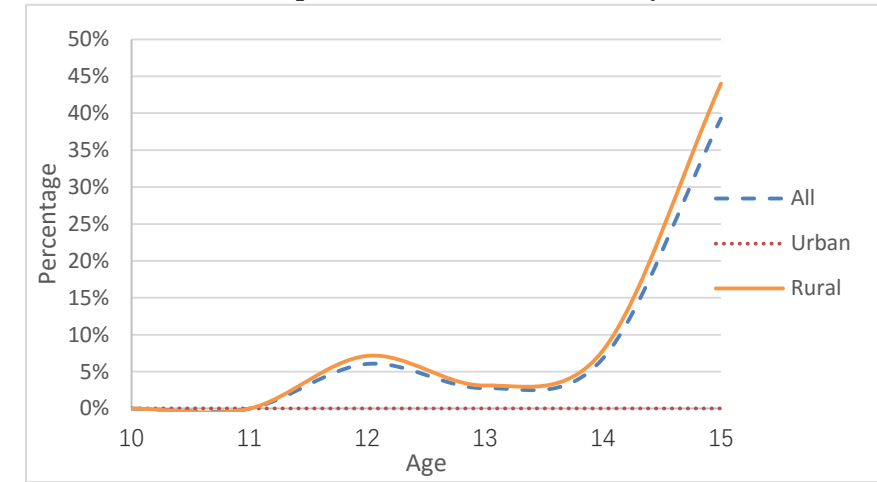
Panel B. Dropout rate of Child Laborers by Gender



Panel C. Dropout rate of Child Laborers by Residence



Panel D. Dropout rate of Child Laborers by *Hukou*



Notes: 1. Authors' calculations based on the 2010 wave of the China Family Panel Study. Only observations in the regression analysis are included.
 2. The definition of child labor is as in note 2 in Table 1.

Table 1. Time Allocation of Children: 10 to 15 Years Old*Unit: hours per day*

Activities	All			Urban			Rural		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Child Laborer	Non-child laborer	Difference	Child Laborer	Non-child laborer	Difference	Child Laborer	Non-child laborer	Difference
Sleep	8.757	8.7955	-0.0385	8.6061	8.7085	-0.1024	8.7957	8.8529	-0.0572
Eating activities	1.2365	1.1881	0.0484	1.2561	1.195	0.0611	1.2315	1.1835	0.048
Personal hygiene	0.817	0.8083	0.0087	0.9167	0.7957	0.121**	0.7914	0.8166	-0.0252
Housework	0.7127	0.4509	0.2618***	0.5455	0.3876	0.1579**	0.7556	0.4927	0.2629***
Taking care of the family	0.2489	0.1774	0.0715**	0.1273	0.1362	-0.0089	0.2802	0.2045	0.0757**
Work	6.7542	0	6.7542***	6.5455	0	6.5455***	6.8078	0	6.8078***
Study	2.0056	8.4255	-6.4199***	2.1939	8.8441	-6.6502***	1.9572	8.1498	-6.1926***
Leisure	2.3622	2.9848	-0.6226***	3.3348	3.0171	0.3177	2.1125	2.9636	-0.8511***
Transportation	0.4006	0.5109	-0.1103***	0.3773	0.525	-0.1477**	0.4066	0.5017	-0.0951**
Others	0.378	0.3722	0.0058	0.303	0.2896	0.0134	0.3973	0.4266	-0.0293
No activity	0.3941	0.3177	0.0764	0.3379	0.3102	0.0277	0.4086	0.3227	0.0859
Total	24.0669	24.0315	0.0354	24.5439	24.209	0.3349**	23.9444	23.9146	0.0298

- Notes:
1. Authors' calculation based on the 2010 wave of the China Family Panel Study.
 2. A child laborer is defined as a child who works outside of the household for pay (cash or in kind), works in agriculture for the household, or works in a household business, i.e., belongs to the Work category in this table.
 3. T-test of difference between child laborers and non-child laborers is reported in columns (3), (6) and (9).

**Table 2: Child Involvement in Economic Activities and Schooling
by Gender and Residence**

	Economic Activity Only	Combining School and Economic Activity	School Only	Neither in School nor in Economic Activity
All children	1.16%	8.90%	88.20%	1.74%
Girl	1.42%	8.60%	88.23%	1.75%
Boy	0.91%	9.19%	88.16%	1.74%
Live in urban area	0.56%	5%	93.10%	1.34%
Live in rural area	1.52%	11.20%	85.29%	1.99%

Notes: 1. Authors' calculations based on the 2010 wave of the China Family Panel Study.

2. Economic activities refer to work outside the household for pay (cash or in kind), work in agriculture for the household, and work in a household business.

Table 3. Summary Statistics

	All		Child Laborer		Non-child laborer		Difference
	(1)	(2)	(3)	(4)	(5)	(6)	
	Mean	Standard error	Mean	Standard error	Mean	Standard error	
Characteristics of the Children							
Child labor (dummy)	0.1005	0.3008	1	0	0	0	1***
School dropout (dummy)	0.0291	0.1681	0.1157	0.3205	0.0194	0.1380	0.0963***
Living in urban area (dummy)	0.3731	0.4837	0.2066	0.4057	0.3917	0.4882	-0.1851***
Boy (dummy)	0.5019	0.5001	0.5041	0.501	0.5016	0.5001	0.0025
Han nationality (dummy)	0.8961	0.3051	0.8802	0.3254	0.8979	0.3028	-0.0177
Age (year)	12.567	1.7396	12.7521	1.7795	12.5464	1.7343	0.2057*
Rural <i>hukou</i> (dummy)	0.7985	0.4012	0.8884	0.3155	0.7885	0.4085	0.0999***
Number of hospital visits last year	1.1558	2.2393	0.8058	1.8534	1.1949	2.2754	-0.3891**
Only mother alive (dummy)	0.0162	0.1263	0.0207	0.1425	0.0157	0.1244	0.005
Only father alive (dummy)	0.0112	0.1053	0.0207	0.1425	0.0102	0.1003	0.0105
Both parents alive (dummy)	0.9726	0.1633	0.9587	0.1994	0.9741	0.1588	-0.0154
Western region (dummy)	0.3631	0.481	0.6364	0.482	0.3326	0.4712	0.3038***
Central region (dummy)	0.2908	0.4542	0.1446	0.3525	0.3072	0.4614	-0.1626***
Eastern region (dummy)	0.3461	0.4758	0.219	0.4144	0.3603	0.4802	-0.1413***
Characteristics of the Household Head							
Age of household head (years)	44.3473	10.1957	44.1777	9.6463	44.3663	10.2572	-0.1886
Household head is male (dummy)	0.7744	0.4181	0.7603	0.4278	0.776	0.417	-0.0157
Education of household head (years)	5.9175	4.5748	5.0145	4.403	6.0185	4.5835	-1.004***
Characteristics of the Household							
Non-agricultural activities by the family (dummy)	0.1055	0.3073	0.0537	0.2259	0.1113	0.3146	-0.0576***
Family was in debt last year (dummy)	0.3577	0.4794	0.3471	0.477	0.3589	0.4798	-0.0118
Log of per capita assets (Chinese yuan)	7.0689	2.4295	6.5072	2.8366	7.1317	2.3722	-0.6245***
Number of adults	2.8953	1.1866	2.814	1.1889	2.9044	1.1863	-0.0904
Number of children under age 18	1.8841	0.941	2.095	1.0909	1.8605	0.9201	0.2345***
Distance to the nearest high school (km)	16.327	19.1121	24.2359	24.368	15.4431	18.226	8.7928***
Share of adults paying attention to the news of law enforcement in the village/community	0.3716	0.2129	0.3004	0.207	0.3795	0.2122	
Number of observations	2407		242		2165		

- Notes: 1. Authors' calculation based on the 2010 wave of the China Family Panel Study.
2. The definition of child labor is as in note 2 in table 1.
3. T-test of difference between child laborers and non-child laborers is reported in column (7).

Table 4. Child Labor Status: Linear Probability Model

Variables	(1)	(2)	(3)	(4)	(5)
	All	Rural	Urban	Girl	Boy
Live in urban area (dummy)	-0.0435*** (0.0132)			-0.0487*** (0.0185)	-0.0439** (0.0194)
Boy (dummy)	0.0079 (0.0122)	0.0138 (0.0176)	-0.0018 (0.0152)		
Han nationality (dummy)	0.0544** (0.0227)	0.0578* (0.0301)	0.0490 (0.0304)	0.0376 (0.0320)	0.0823** (0.0324)
Age (years)	-0.0644 (0.0611)	-0.0796 (0.0847)	-0.0349 (0.0781)	-0.0764 (0.0882)	-0.0490 (0.0836)
Age squared (years squared)	0.0027 (0.0024)	0.0032 (0.0034)	0.0018 (0.0031)	0.0031 (0.0035)	0.0023 (0.0033)
Rural hukou (dummy)	-0.0022 (0.0153)	0.0451 (0.0371)	0.0059 (0.0179)	-0.0125 (0.0231)	0.0044 (0.0209)
Number of hospital visits last year	-0.0041* (0.0024)	-0.0051 (0.0036)	-0.0031 (0.0019)	0.0002 (0.0028)	-0.0083** (0.0040)
Only mother alive (dummy)	-0.0495 (0.0896)	-0.1157 (0.1191)	0.1298 (0.0872)	-0.2715 (0.1747)	0.0513 (0.1000)
Both parents alive (dummy)	-0.0599 (0.0735)	-0.1018 (0.0982)	0.0630*** (0.0231)	-0.2908* (0.1570)	0.0533 (0.0704)
Age of household head (years)	0.0005 (0.0007)	0.0007 (0.0010)	0.0006 (0.0009)	-0.0009 (0.0009)	0.0017 (0.0011)
Household head is male (dummy)	-0.0298 (0.0249)	-0.0498 (0.0342)	0.0172 (0.0323)	-0.0164 (0.0322)	-0.0252 (0.0387)
Education of household head (years)	-0.0010 (0.0027)	-0.0029 (0.0054)	0.0033 (0.0029)	-0.0004 (0.0034)	-0.0008 (0.0045)
Education × male household head	0.0013 (0.0030)	0.0026 (0.0059)	-0.0025 (0.0034)	0.0021 (0.0038)	-0.0012 (0.0048)
Non-agricultural activities by the family (dummy)	-0.0292* (0.0162)	-0.0334 (0.0285)	-0.0223 (0.0170)	-0.0336 (0.0234)	-0.0178 (0.0229)
Family was in debt last year (dummy)	-0.0164 (0.0131)	-0.0212 (0.0178)	-0.0062 (0.0165)	-0.0250 (0.0191)	-0.0097 (0.0185)
Log household assets per capita (Chinese yuan)	-0.0071** (0.0031)	-0.0063 (0.0046)	-0.0077* (0.0040)	-0.0075 (0.0046)	-0.0070* (0.0042)
Number of children	-0.0333 (0.0240)	-0.0197 (0.0297)	-0.0761 (0.0531)	-0.0587* (0.0332)	0.0019 (0.0327)
Number of children squared	0.0093* (0.0047)	0.0077 (0.0054)	0.0165 (0.0130)	0.0135** (0.0061)	0.0022 (0.0069)
Number of adults	-0.0362* (0.0197)	-0.0431 (0.0265)	-0.0182 (0.0230)	-0.0853** (0.0381)	-0.0084 (0.0231)
Number of adults squared	0.0027 (0.0023)	0.0030 (0.0030)	0.0019 (0.0027)	0.0096* (0.0050)	-0.0009 (0.0023)
Central region	-0.1362*** (0.0174)	-0.1631*** (0.0219)	-0.0792*** (0.0297)	-0.1467*** (0.0239)	-0.1266*** (0.0255)
Eastern region	-0.1133*** (0.0167)	-0.1324*** (0.0210)	-0.0680** (0.0287)	-0.1077*** (0.0227)	-0.1224*** (0.0248)
Constant	0.7383* (0.3829)	0.8644 (0.5292)	0.2715 (0.4723)	1.2366** (0.5649)	0.3608 (0.5237)
Observations	2,407	1,509	898	1,199	1,208
R-squared	0.0612	0.0617	0.0383	0.0746	0.0686

Notes: 1. The dependent variable is child labor participation. The definition of child labor is as in note 2 in Table 1.
2. Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
3. Central region and Eastern region are as defined in Figure 1.
4. Data source: the 2010 wave of the China Family Panel Study.

Table 5. Working Hours: Tobit Model

Variables	(1)	(2)	(3)	(4)	(5)
	All	Rural	Urban	Girl	Boy
Live in urban area (dummy)	-3.7041*** (1.1435)			-3.8850** (1.6162)	-3.6702** (1.5412)
Boy (dummy)	0.6816 (0.8425)	0.9419 (0.9694)	-0.1463 (0.5073)		
Han nationality (dummy)	3.3469** (1.3292)	3.0261** (1.4702)	4.7152*** (0.6766)	2.7328 (1.7409)	5.0774** (1.9863)
Age (year)	-5.9825 (4.1965)	-6.7105 (4.7105)	-5.3513*** (0.0544)	-7.8227 (5.9013)	-3.4276 (5.7002)
Age squared (years squared)	0.2504 (0.1665)	0.2704 (0.1875)	0.2512*** (0.0038)	0.3139 (0.2342)	0.1598 (0.2260)
Rural hukou (dummy)	-0.0636 (1.4768)	4.6948 (3.8281)	0.4120 (0.5558)	-1.0437 (2.0497)	1.0564 (2.1554)
Number of hospital visits last year	-0.4257* (0.2498)	-0.3074 (0.2550)	-1.0748*** (0.1558)	0.0156 (0.2594)	-0.7797* (0.4588)
Only mother alive (dummy)	-0.9228 (4.2111)	-4.1961 (4.8693)	64.2064*** (0.4144)	-7.6433 (5.8439)	4.0972 (5.4046)
Both parents alive (dummy)	-1.8769 (3.0162)	-3.3181 (3.2244)	58.4473*** (0.7169)	-11.0794*** (3.4128)	4.4132 (4.0985)
Age of household head (years)	0.0522 (0.0478)	0.0566 (0.0556)	0.0718*** (0.0149)	-0.0923 (0.0696)	0.1418** (0.0621)
Household head is male (dummy)	-1.2436 (1.4412)	-2.0259 (1.5833)	2.6935*** (0.6545)	-0.1966 (1.9449)	-0.7758 (1.9937)
Education of household head (years)	0.0630 (0.1908)	-0.0203 (0.2745)	0.3640*** (0.0582)	0.1053 (0.2510)	0.1318 (0.2751)
Education × male household head	-0.0574 (0.2103)	-0.0010 (0.3010)	-0.3038*** (0.0573)	0.0205 (0.2735)	-0.3167 (0.3048)
Non-agricultural activities by the family (dummy)	-2.8544* (1.7033)	-2.0490 (2.1673)	-4.9051*** (0.4594)	-3.1416 (2.5110)	-2.1524 (2.3323)
Family was in debt last year (dummy)	-1.1557 (0.8953)	-1.2038 (0.9983)	-0.6959 (0.4510)	-1.7700 (1.3051)	-0.6410 (1.2204)
Log household assets per capita (Chinese yuan)	-0.4918*** (0.1773)	-0.3306 (0.2134)	-0.7900*** (0.0782)	-0.4856* (0.2610)	-0.5450** (0.2411)
Number of children	-1.7870 (1.3794)	-0.9670 (1.5349)	-8.5568*** (0.3500)	-3.2955* (1.9460)	-0.0403 (2.0813)
Number of children squared	0.5295** (0.2294)	0.4147* (0.2446)	1.7857*** (0.0820)	0.7615*** (0.2890)	0.2000 (0.4032)
Number of adults	-1.8375 (1.2390)	-1.5881 (1.3352)	-1.5497*** (0.2218)	-4.7443** (2.0159)	0.2130 (1.5311)
Number of adults squared	0.1208 (0.1474)	0.0761 (0.1540)	0.1502*** (0.0316)	0.5481** (0.2574)	-0.1493 (0.1705)
Central region	-8.8893*** (1.1553)	-9.4264*** (1.3646)	-8.1672*** (0.4872)	-10.4986*** (1.7860)	-7.6931*** (1.4798)
Eastern region	-6.6918*** (0.9936)	-6.9635*** (1.1574)	-6.6679*** (0.5235)	-6.5746*** (1.3144)	-7.2717*** (1.4437)
Constant	31.8871 (26.1960)	33.2354 (29.7058)	-38.6296*** (0.7196)	66.5949* (37.0761)	-1.9137 (35.6908)
Observations	2,407	1,509	898	1,199	1,208
Log pseudolikelihood	-1398	-1076	-313.3	-686.1	-697.4
Pseudo R-square	0.0502	0.0407	0.0551	0.0602	0.0594

Notes: 1. The dependent variable is working hours of children per day. The definition of child labor note 2 in Table 1.
2. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.
3. Central region and Eastern region are as defined in Figure 1.
4. Data source: the 2010 wave of the China Family Panel Study.

Table 6. McDonald and Moffitt's Decomposition from Tobit Model

Variables	(1)	(2)	(3)
	Unconditional	Conditional	Probability
Live in urban area (dummy)	-0.3836*** (0.1200)	-0.6153*** (0.1892)	-0.0519*** (0.0160)
Boy (dummy)	0.0706 (0.0873)	0.1132 (0.1399)	0.0096 (0.0118)
Han nationality (dummy)	0.3466** (0.1389)	0.5560** (0.2207)	0.0469** (0.0187)
Age (years)	-0.6195 (0.4366)	-0.9938 (0.6975)	-0.0838 (0.0588)
Age squared (years squared)	0.0259 (0.0173)	0.0416 (0.0277)	0.0035 (0.0023)
Rural <i>hukou</i> (dummy)	-0.0066 (0.1529)	-0.0106 (0.2453)	-0.0009 (0.0207)
Number of hospital visits last year	-0.0441* (0.0260)	-0.0707* (0.0414)	-0.0060* (0.0035)
Only mother alive (dummy)	-0.0956 (0.4360)	-0.1533 (0.6995)	-0.0129 (0.0590)
Both parents alive (dummy)	-0.1944 (0.3123)	-0.3118 (0.5009)	-0.0263 (0.0423)
Age of household head (years)	0.0054 (0.0050)	0.0087 (0.0079)	0.0007 (0.0007)
Household head is male (dummy)	-0.1288 (0.1492)	-0.2066 (0.2392)	-0.0174 (0.0202)
Education of household head (dummy)	0.0065 (0.0198)	0.0105 (0.0317)	0.0009 (0.0027)
Education × male household head	-0.0059 (0.0218)	-0.0095 (0.0349)	-0.0008 (0.0029)
Non-agricultural activities by the family (dummy)	-0.2956* (0.1771)	-0.4742* (0.2827)	-0.0400* (0.0239)
Family was in debt last year (dummy)	-0.1197 (0.0929)	-0.1920 (0.1487)	-0.0162 (0.0126)
Log household assets per capita (Chinese yuan)	-0.0509*** (0.0186)	-0.0817*** (0.0294)	-0.0069*** (0.0025)
Number of children	-0.1851 (0.1434)	-0.2969 (0.2292)	-0.0250 (0.0193)
Number of children squared	0.0548** (0.0240)	0.0880** (0.0381)	0.0074** (0.0032)
Number of adults	-0.1903 (0.1284)	-0.3053 (0.2055)	-0.0258 (0.0174)
Number of adults squared	0.0125 (0.0153)	0.0201 (0.0245)	0.0017 (0.0021)
Central region	-0.9206*** (0.1288)	-1.4767*** (0.1884)	-0.1246*** (0.0170)
Eastern region	-0.6930*** (0.1095)	-1.1117*** (0.1640)	-0.0938*** (0.0149)
Observations	2,407	2,407	2,407

Notes: 1. The dependent variable is working hours of children per day. The definition of child labor is as in note 2 in Table 1.
2. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.
3. Central region and Eastern region are as defined in Figure 1.
4. Data source: the 2010 wave of the China Family Panel Study.

Table 7. Working Hours: Heckman Selection Model (Second Stage)

Variables	All (1)	Rural (2)	Urban (3)	Girl (4)	Boy (5)
Live in urban area (dummy)	-3.88** (1.548)			-3.1132 (2.3261)	-5.657 (3.741)
Boy (dummy)	0.2017 (0.7187)	0.2933 (0.7617)	-0.0760 (2.0681)		
Han nationality (dummy)	1.6933 (1.7111)	1.5502 (1.4730)	3.1210 (6.42)	1.6112 (1.91)	3.5765 (5.3625)
Age (years)	-5.2380** (2.6387)	-4.8265 (3.9495)	-13.6495 (10.383)	-4.75 (4.34)	-5.6087 (6.096)
Age squared (years squared)	0.2137** (0.1077)	0.1944 (0.1588)	0.5557 (0.4084)	0.1886 (0.1740)	0.2406 (0.248)
Rural <i>hukou</i> (dummy)	-2.1035** (0.9920)	1.4902 (3.5372)	-2.1378 (3.250)	-1.2352 (1.697)	-1.8179 (3.051)
Number of hospital visits last year	-0.1365 (0.1707)	-0.0698 (0.229)	-1.0882 (1.246)	0.0025 (0.2290)	-0.5399 (1.2501)
Only mother alive (dummy)	1.7886 (3.3300)	1.0254 (4.3933)	4.3622 (16.3264)	0.5881 (5.1985)	3.4888 (7.6755)
Both parents alive (dummy)	1.5888 (2.4903)	1.3487 (3.5450)		-1.6533 (6.7866)	4.6090 (5.9385)
Age of household head (years)	0.0411 (0.0264)	0.0397 (0.0306)	0.0755 (0.0953)	-0.0584 (0.0772)	0.1276 (0.1135)
Household head is male (dummy)	0.0271 (0.9990)	0.0179 (1.5015)	-0.3980 (6.0116)	0.6580 (1.7147)	-0.1310 (2.2911)
Education of household head (years)	0.1230 (0.1181)	0.0664 (0.2126)	0.2533 (0.5146)	0.2116 (0.2253)	0.1673 (0.3500)
Education ×male household head	-0.1410 (0.1335)	-0.1008 (0.2087)	-0.0095 (0.5754)	-0.1859 (0.2446)	-0.3048 (0.4729)
Non-agricultural activities by the family(dummy)	-2.1729 (1.6263)	-1.5356 (2.8948)	-3.4818 (16.4344)	-3.4468 (3.3739)	-1.2587 (3.6529)
Family was in debt last year (dummy)	-0.0841 (0.7649)	-0.1015 (0.9561)	-0.5540 (2.7878)	0.1019 (1.4105)	-0.4458 (1.4674)
Log household assets per capita(Chinese yuan)	-0.1657 (0.1685)	-0.1095 (0.1547)	-0.3915 (0.6190)	-0.0535 (0.2422)	-0.4391 (0.5259)
Number of children	-1.7404* (0.9721)	-1.1383 (1.4156)	-0.3639 (10.3210)	-2.3461 (1.9180)	-1.1855 (2.4937)
Number of children squared	0.3015 (0.2186)	0.1980 (0.3195)	-0.3771 (2.4173)	0.3764 (0.3730)	0.2677 (0.4776)
Number of adults	-0.6751 (0.9296)	-0.3119 (1.397)	-3.2438 (7.5781)	-1.5455 (2.8100)	0.1918 (2.2933)
Number of adults squared	0.0989 (0.1002)	0.0481 (0.1548)	0.5711 (1.1079)	0.2608 (0.3501)	-0.0747 (0.3712)
Central region	-3.3517 (2.978)	-3.3059 (4.6328)	-3.8885 (6.5642)	-3.3760 (5.7254)	-5.5767 (7.4432)
Eastern region	-0.0998 (2.4323)	0.2438 (3.556)	-0.4621 (6.0479)	-0.0703 (3.83)	-2.5502 (7.6512)
Mills ratio	4.6693 (4.6123)	3.9452 (6.6556)	6.7204 (9.3130)	3.6983 (6.5726)	9.3798 (13.555)
Constant	33.2133** (15.3138)	27.4365 (20.6737)	79.0266 (61.4764)	39.5741 (30.2080)	19.6803 (42.753)
Observations	2,407	1,509	898	1,199	1,208

- Notes: 1. The dependent variable is working hours of children per day. The definition of child labor is as in note 2 in Table 1.
2. Bootstrapped standard errors with 200 replications in parentheses. *** p<0.01, ** p<0.05, * p<0.1.
3. The exclusion restriction for the Heckman model is the share of adults paying attention to legal news in the village/community.
4. Central region and Eastern region as defined in Figure 1.
5. Data source: the 2010 wave of the China Family Panel Study.

Table 8. Child Labor Incidence and School Dropouts: Linear Probability Model

Variables	(1) All	(2) Rural	(3) Urban	(4) Girl	(5) Boy
Child labor (dummy)	0.0960*** (0.0195)	0.0982*** (0.0221)	0.0870** (0.0410)	0.1139*** (0.0287)	0.0753*** (0.0259)
Live in urban area (dummy)	-0.0010 (0.0083)			0.0051 (0.0121)	-0.0084 (0.0112)
Boy (dummy)	-0.0072 (0.0068)	-0.0161* (0.0095)	0.0036 (0.0086)		
Han nationality (dummy)	-0.0520*** (0.0153)	-0.0674*** (0.0201)	-0.0240 (0.0197)	-0.0671*** (0.0227)	-0.0325* (0.0194)
Age (years)	-0.1811*** (0.0335)	-0.1862*** (0.0451)	-0.1822*** (0.0493)	-0.1820*** (0.0474)	-0.1877*** (0.0461)
Age squared (years squared)	0.0078*** (0.0014)	0.0081*** (0.0019)	0.0077*** (0.0020)	0.0080*** (0.0020)	0.0080*** (0.0019)
Rural hukou (dummy)	0.0088 (0.0096)	0.0430*** (0.0139)	0.0027 (0.0128)	0.0189 (0.0116)	-0.0016 (0.0151)
Number of hospital visits last year	0.0003 (0.0011)	0.0009 (0.0016)	-0.0007 (0.0013)	0.0019 (0.0017)	-0.0008 (0.0013)
Only mother alive (dummy)	-0.1125 (0.0786)	-0.1150 (0.0948)	-0.0987 (0.1404)	-0.3486** (0.1561)	0.0246 (0.0931)
Both parents alive (dummy)	-0.1452** (0.0687)	-0.1486* (0.0789)	-0.1329 (0.1298)	-0.2983* (0.1567)	-0.0799 (0.0660)
Age of household head (year)	-0.0004 (0.0003)	-0.0005 (0.0004)	-0.0001 (0.0005)	-0.0003 (0.0005)	-0.0004 (0.0004)
Household head is male (dummy)	0.0194* (0.0112)	0.0151 (0.0158)	0.0298** (0.0131)	0.0301* (0.0177)	0.0147 (0.0143)
Education of household head (year)	-0.0015 (0.0012)	-0.0017 (0.0029)	-0.0002 (0.0008)	-0.0019 (0.0017)	-0.0006 (0.0019)
Education × male household head	-0.0001 (0.0013)	-0.0000 (0.0030)	-0.0008 (0.0012)	-0.0005 (0.0019)	-0.0006 (0.0018)
Non-agricultural (dummy) activities by the family	-0.0054 (0.0094)	0.0028 (0.0168)	-0.0142 (0.0097)	-0.0032 (0.0128)	-0.0042 (0.0129)
Family was in debt last year (dummy)	-0.0056 (0.0072)	-0.0139 (0.0094)	0.0071 (0.0106)	-0.0087 (0.0103)	-0.0019 (0.0102)
Log of per capita assets (Chinese yuan)	0.0012 (0.0014)	0.0029 (0.0025)	0.0002 (0.0012)	0.0031 (0.0020)	-0.0008 (0.0021)
Number of children	-0.0016 (0.0126)	-0.0198 (0.0157)	0.0561** (0.0264)	-0.0211 (0.0177)	0.0206 (0.0172)
Number of children squared	-0.0005 (0.0023)	0.0022 (0.0026)	-0.0117** (0.0058)	0.0025 (0.0030)	-0.0047 (0.0029)
Number of adults	-0.0171 (0.0130)	-0.0309* (0.0187)	0.0035 (0.0135)	-0.0122 (0.0160)	-0.0179 (0.0175)
Number of adults squared	0.0023 (0.0017)	0.0041 (0.0025)	-0.0002 (0.0015)	0.0015 (0.0019)	0.0025 (0.0024)
Central region	0.0376*** (0.0086)	0.0361*** (0.0111)	0.0390*** (0.0119)	0.0364*** (0.0117)	0.0402*** (0.0126)
Eastern region	0.0318*** (0.0080)	0.0332*** (0.0110)	0.0273*** (0.0100)	0.0302*** (0.0109)	0.0330*** (0.0119)
Distance to the nearest high school (km)	0.0003 (0.0002)	0.0004 (0.0003)	-0.0002 (0.0004)	0.0009** (0.0004)	-0.0002 (0.0003)
Constant	1.2327*** (0.2183)	1.2816*** (0.2939)	1.1191*** (0.3023)	1.3656*** (0.3256)	1.2103*** (0.3015)
Observations	2,407	1,509	898	1,199	1,208
R-squared	0.0963	0.1074	0.0945	0.1409	0.0828

- Notes: 1. The dependent variable is the school dropout dummy.
2. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.
3. Central region and Eastern region as defined in Figure 1.
4. Data source: the 2010 wave of the China Family Panel Study.

Table 9. Working Hours and School Dropouts: Linear Probability Model

Variables	(1) All	(2) Rural	(3) Urban	(4) Girl	(5) Boy
Working hours per day	0.0122*** (0.0028)	0.0136*** (0.0033)	0.0067 (0.0048)	0.0140*** (0.0039)	0.0103** (0.0040)
Live in urban area (dummy)	-0.0001 (0.0084)			0.0054 (0.0122)	-0.0070 (0.0112)
Boy (dummy)	-0.0072 (0.0068)	-0.0163* (0.0095)	0.0037 (0.0087)		
Han nationality (dummy)	-0.0521*** (0.0154)	-0.0686*** (0.0202)	-0.0217 (0.0196)	-0.0687*** (0.0230)	-0.0318 (0.0194)
Age (year)	-0.1775*** (0.0335)	-0.1784*** (0.0447)	-0.1838*** (0.0501)	-0.1788*** (0.0476)	-0.1842*** (0.0458)
Age squared (years)	0.0077*** (0.0014)	0.0078*** (0.0018)	0.0078*** (0.0021)	0.0078*** (0.0020)	0.0079*** (0.0019)
Rural hukou (dummy)	0.0088 (0.0097)	0.0416*** (0.0140)	0.0032 (0.0129)	0.0180 (0.0116)	-0.0010 (0.0153)
Number of hospital visits last year	0.0003 (0.0011)	0.0008 (0.0016)	-0.0008 (0.0013)	0.0019 (0.0017)	-0.0008 (0.0013)
Only mother alive (dummy)	-0.1167 (0.0798)	-0.1234 (0.0965)	-0.0910 (0.1400)	-0.3654** (0.1554)	0.0248 (0.0943)
Both parents alive (dummy)	-0.1499** (0.0700)	-0.1558* (0.0808)	-0.1297 (0.1299)	-0.3113** (0.1558)	-0.0823 (0.0679)
Age of household head (years)	-0.0004 (0.0003)	-0.0006 (0.0004)	-0.0001 (0.0005)	-0.0003 (0.0005)	-0.0005 (0.0004)
Household head is male (dummy)	0.0193* (0.0112)	0.0147 (0.0157)	0.0315** (0.0135)	0.0291 (0.0177)	0.0155 (0.0141)
Education of household head (year)	-0.0016 (0.0012)	-0.0018 (0.0029)	-0.0001 (0.0008)	-0.0020 (0.0017)	-0.0007 (0.0019)
Education × male household head	-0.0000 (0.0013)	0.0001 (0.0030)	-0.0010 (0.0012)	-0.0003 (0.0019)	-0.0006 (0.0018)
Non-agricultural activities by the family (dummy)	-0.0053 (0.0095)	0.0031 (0.0171)	-0.0149 (0.0097)	-0.0024 (0.0131)	-0.0044 (0.0130)
Family was in debt last year (dummy)	-0.0061 (0.0072)	-0.0142 (0.0093)	0.0066 (0.0108)	-0.0091 (0.0104)	-0.0025 (0.0102)
Log household assets per capita (Chinese yuan)	0.0011 (0.0014)	0.0028 (0.0025)	-0.0002 (0.0011)	0.0028 (0.0019)	-0.0007 (0.0021)
Number of children	-0.0002 (0.0126)	-0.0184 (0.0156)	0.0541** (0.0264)	-0.0188 (0.0173)	0.0209 (0.0173)
Number of children squared	-0.0007 (0.0023)	0.0020 (0.0026)	-0.0112* (0.0058)	0.0022 (0.0030)	-0.0047 (0.0029)
Number of adults	-0.0182 (0.0130)	-0.0325* (0.0187)	0.0028 (0.0137)	-0.0146 (0.0157)	-0.0185 (0.0175)
Number of adults squared	0.0024 (0.0017)	0.0042* (0.0025)	-0.0002 (0.0015)	0.0017 (0.0018)	0.0026 (0.0024)
Central region	0.0363*** (0.0085)	0.0358*** (0.0111)	0.0360*** (0.0113)	0.0347*** (0.0115)	0.0395*** (0.0125)
Eastern region	0.0296*** (0.0080)	0.0309*** (0.0110)	0.0244** (0.0099)	0.0278** (0.0108)	0.0313*** (0.0120)
Distance to the nearest high school (km)	0.0003 (0.0002)	0.0004 (0.0003)	-0.0002 (0.0004)	0.0009** (0.0004)	-0.0002 (0.0003)
Constant	1.2200*** (0.2192)	1.2492*** (0.2933)	1.1285*** (0.3060)	1.3680*** (0.3260)	1.1937*** (0.3015)
Observations	2,407	1,509	898	1,199	1,208
R-squared	0.0930	0.1095	0.0797	0.1344	0.0828

Notes: 1. The dependent variable is the school dropout dummy.
2. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.
3. Central region and Eastern region as defined in Figure 1.
4. Data source: the 2010 wave of the China Family Panel Study.

Table 10. Household Chores: Tobit Model

Variables	(1) All	(2) Rural	(3) Urban	(4) Girl	(5) Boy
Live in urban area (dummy)	0.1269** (0.0635)			0.1841** (0.0868)	0.0592 (0.0916)
Boy (dummy)	-0.2423*** (0.0499)	-0.2773*** (0.0686)	-0.2076*** (0.0670)		
Han nationality (dummy)	0.0166 (0.0829)	0.0712 (0.1072)	-0.1084 (0.1228)	-0.1326 (0.1086)	0.1905 (0.1267)
Age (years)	0.3765 (0.2490)	0.2781 (0.3352)	0.5947* (0.3526)	0.0619 (0.3532)	0.5762 (0.3501)
Age squared (years squared)	-0.0153 (0.0099)	-0.0126 (0.0134)	-0.0224 (0.0140)	-0.0032 (0.0141)	-0.0228 (0.0140)
Rural <i>hukou</i> (dummy)	0.2009*** (0.0758)	0.2210 (0.2225)	0.1454* (0.0785)	0.2896*** (0.1047)	0.0722 (0.1089)
Number of hospital visits last year	-0.0053 (0.0105)	0.0091 (0.0134)	-0.0194 (0.0174)	-0.0155 (0.0159)	0.0070 (0.0132)
Only mother alive (dummy)	0.2523 (0.2724)	0.1137 (0.3572)	0.4033 (0.4216)	-0.2541 (0.4234)	0.5296 (0.3443)
Both parents alive (dummy)	-0.0119 (0.2268)	-0.1501 (0.2820)	0.2669 (0.3610)	-0.4205 (0.3653)	0.1750 (0.2751)
Age of household head (dummy)	0.0058** (0.0029)	0.0113*** (0.0039)	-0.0011 (0.0041)	0.0060 (0.0043)	0.0065* (0.0038)
Household head is male (dummy)	-0.0610 (0.1006)	-0.2174 (0.1348)	0.2017 (0.1484)	0.0065 (0.1439)	-0.0991 (0.1423)
Education of household head	-0.0250** (0.0117)	-0.0279 (0.0217)	-0.0205 (0.0136)	-0.0407** (0.0166)	-0.0090 (0.0165)
Education × male household head	0.0041 (0.0127)	0.0169 (0.0232)	-0.0188 (0.0156)	0.0124 (0.0179)	-0.0047 (0.0180)
Non-agricultural activities by the family (dummy)	-0.0074 (0.0877)	-0.1902 (0.1582)	0.0818 (0.0874)	0.1062 (0.1319)	-0.0688 (0.1192)
Family was in debt last year (dummy)	0.0796 (0.0525)	0.0446 (0.0691)	0.1330* (0.0732)	0.1145 (0.0758)	0.0351 (0.0728)
Log of per capita assets (Chinese yuan)	0.0163 (0.0104)	0.0221 (0.0156)	0.0121 (0.0129)	0.0001 (0.0140)	0.0296* (0.0153)
Number of children	0.1716** (0.0852)	0.1238 (0.1112)	0.2611 (0.2427)	0.2566** (0.1135)	0.1337 (0.1400)
Number of children squared	-0.0076 (0.0149)	0.0005 (0.0181)	-0.0257 (0.0604)	-0.0189 (0.0181)	-0.0112 (0.0279)
Number of adults	-0.0507 (0.0775)	0.0199 (0.1023)	-0.1842 (0.1250)	-0.1989 (0.1343)	0.0602 (0.0992)
Number of adults squared	0.0034 (0.0095)	-0.0048 (0.0123)	0.0198 (0.0169)	0.0205 (0.0176)	-0.0084 (0.0117)
Central region	-0.5435*** (0.0704)	-0.7440*** (0.0951)	-0.2561** (0.1042)	-0.5337*** (0.1015)	-0.5649*** (0.0954)
Eastern region	-0.2765*** (0.0627)	-0.3187*** (0.0837)	-0.1741* (0.0923)	-0.0933 (0.0835)	-0.4925*** (0.0919)
Constant	-2.4376 (1.5662)	-1.7884 (2.0998)	-3.7470* (2.2099)	0.1894 (2.2470)	-4.3748** (2.1954)
Observations	2,407	1,509	898	1,199	1,208
Log pseudolikelihood	-2658	-1734	-891.7	-1384	-1253
Pseudo R-square	0.0383	0.0362	0.0599	0.0488	0.0302

- Notes: 1. The dependent variable is child time spent on household chores (hours per day).
2. Central region and Eastern region as defined in Figure 1.
3. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.
4. Data source: the 2010 wave of the China Family Panel Study.

Table 11. Taking Care of Family Members: Tobit Model

Variables	(1) All	(2) Rural	(3) Urban	(4) Girl	(5) Boy
Live in urban area (dummy)	-0.0826 (0.1235)			0.1516 (0.1639)	-0.4477** (0.1891)
Boy (dummy)	-0.4269*** (0.1010)	-0.4212*** (0.1334)	-0.4715*** (0.1463)		
Han nationality (dummy)	0.6159*** (0.1792)	0.7379*** (0.2279)	0.2561 (0.2733)	0.6211*** (0.2244)	0.5321* (0.2872)
Age (years)	0.4305 (0.4718)	0.8076 (0.6129)	-0.3251 (0.7289)	0.7752 (0.6407)	-0.0960 (0.6927)
Age squared (years squared)	-0.0201 (0.0188)	-0.0351 (0.0245)	0.0098 (0.0290)	-0.0336 (0.0256)	0.0005 (0.0276)
Rural hukou (dummy)	-0.1183 (0.1510)	0.6289 (0.4807)	-0.2680 (0.1632)	0.1446 (0.2094)	-0.5557** (0.2214)
Number of hospital visits last year	-0.0365 (0.0244)	-0.0344 (0.0316)	-0.0492 (0.0327)	-0.0630* (0.0344)	-0.0026 (0.0318)
Only mother alive (dummy)	0.1396 (0.6079)	0.0552 (0.8218)	0.5536 (0.9177)	-0.6052 (0.9453)	0.8075 (0.7895)
Both parents alive (dummy)	0.3870 (0.4799)	0.3170 (0.5948)	0.7019 (0.7966)	0.1781 (0.7253)	0.4907 (0.6347)
Age of household head (years)	0.0012 (0.0055)	0.0005 (0.0070)	0.0052 (0.0085)	0.0008 (0.0075)	0.0013 (0.0078)
Household head is male (dummy)	0.1155 (0.1787)	-0.1537 (0.2091)	0.7204** (0.3432)	0.2358 (0.2443)	-0.0311 (0.2483)
Education of household head (years)	-0.0339 (0.0226)	-0.0770** (0.0388)	0.0083 (0.0318)	-0.0414 (0.0296)	-0.0288 (0.0328)
Education × male household head	-0.0060 (0.0248)	0.0471 (0.0417)	-0.0697* (0.0360)	-0.0085 (0.0324)	0.0016 (0.0355)
Non-agricultural activities by the family the family (dummy)	-0.0135 (0.1507)	-0.0540 (0.2293)	0.0809 (0.1854)	0.0414 (0.1937)	-0.0635 (0.2362)
Family was in debt last year (dummy)	0.2059** (0.0987)	0.1594 (0.1196)	0.3022* (0.1738)	0.1680 (0.1319)	0.2475* (0.1468)
Log household assets per capita (Chinese yuan)	-0.0013 (0.0207)	-0.0016 (0.0298)	0.0063 (0.0278)	0.0038 (0.0282)	-0.0068 (0.0299)
Number of children	0.2658* (0.1540)	0.1665 (0.1879)	0.8058** (0.4084)	0.3590* (0.2089)	0.6746** (0.3382)
Number of children squared	-0.0091 (0.0253)	0.0083 (0.0288)	-0.1384 (0.0935)	-0.0122 (0.0316)	-0.1429* (0.0757)
Number of adults	0.0435 (0.1555)	0.2012 (0.2135)	-0.2366 (0.2250)	-0.0611 (0.2274)	0.1467 (0.2191)
Number of adults squared	-0.0154 (0.0199)	-0.0376 (0.0276)	0.0270 (0.0281)	0.0006 (0.0300)	-0.0295 (0.0270)
Central region	-0.4649*** (0.1271)	-0.6701*** (0.1596)	-0.1169 (0.2192)	-0.4679*** (0.1759)	-0.4485** (0.1820)
Eastern region	-0.1458 (0.1184)	-0.1472 (0.1468)	-0.0486 (0.2035)	-0.1441 (0.1556)	-0.1284 (0.1805)
Constant	-4.4219 (3.0284)	-7.4155* (4.0102)	-0.3812 (4.4976)	-6.7247 (4.1635)	-1.3889 (4.3980)
Observations	2,407	1,509	898	1,199	1,208
Log pseudolikelihood	-1576	-1059	-505	-905.2	-658
Pseudo R-square	0.0358	0.0379	0.0423	0.0406	0.0263

Notes: 1. The dependent variable is child time spent on taking care of family members (hours per day).

2. Central region and Eastern region as defined in Figure 1.

3. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

4. Data source: the 2010 wave of the China Family Panel Study.

Appendix Table 1. Working Hours: Heckman Selection Model (First Stage)

Variables	All (1)	Rural (2)	Urban (3)	Girl (4)	Boy (5)
Live in urban area (dummy)	-0.25*** (0.097)			-0.2780* (0.161)	-0.257* (0.153)
Boy (dummy)	0.0475 (0.080)	0.0736 (0.093)	-0.0203 (0.162)		
Han nationality (dummy)	0.3327** (0.14)	0.3026** (0.14)	0.4630 (0.35)	0.27 (0.18)	0.498** (0.199)
Age (years)	-0.4092 (0.398)	-0.4547 (0.465)	-0.371 (0.776)	-0.5809 (0.518)	-0.2080 (0.5350)
Age squared (years squared)	0.0174 (0.016)	0.0184 (0.018)	0.018 (0.03)	0.0234 (0.021)	0.0103 (0.021)
Rural hukou (dummy)	-0.0554 (0.128)	0.3485 (0.289)	-0.044 (0.192)	-0.1754 (0.204)	0.0770 (0.237)
Number of hospital visits last year	-0.0346 (0.024)	-0.0262 (0.027)	-0.0799 (0.058)	0.0046 (0.027)	-0.0669 (0.052)
Only mother alive (dummy)	-0.2115 (0.4768)	-0.5413 (0.5080)	5.38*** (0.5670)	-1.0600 (1.0506)	0.3124 (0.5055)
Both parents alive (dummy)	-0.2661 (0.3593)	-0.4191 (0.3564)	4.8902*** (0.3976)	-1.2457 (0.9850)	0.3096 (0.3514)
Age of household head (years)	0.0042 (0.0042)	0.0044 (0.0055)	0.0062 (0.0084)	-0.0070 (0.0069)	0.0116* (0.0064)
Household head is male (dummy)	-0.1476 (0.1517)	-0.2253 (0.1463)	0.2196 (0.3513)	-0.0709 (0.1852)	-0.0816 (0.2182)
Education of household head (years)	0.0044 (0.0189)	-0.0038 (0.0295)	0.0339 (0.0310)	0.0100 (0.0247)	0.0100 (0.0326)
Education ×male household head	-0.0014 (0.0203)	0.0046 (0.0307)	-0.0282 (0.0368)	0.0047 (0.0276)	-0.0257 (0.0369)
Non-agricultural activities by the family(dummy)	-0.2306 (0.1604)	-0.1710 (0.2129)	-0.3859 (0.2860)	-0.2041 (0.3009)	-0.2032 (0.2390)
Family was in debt last year (dummy)	-0.0981 (0.0876)	-0.1043 (0.0867)	-0.0592 (0.1716)	-0.1441 (0.1372)	-0.0639 (0.1096)
Log household assets per capita(Chinese yuan)	-0.0396** (0.0176)	-0.0269 (0.0214)	-0.0606** (0.0280)	-0.0450* (0.0270)	-0.0422* (0.0219)
Number of children	-0.1790 (0.1377)	-0.1028 (0.1431)	-0.8284 (0.5215)	-0.3273 (0.2035)	-0.0138 (0.2106)
Number of children squared	0.0473** (0.0233)	0.0374 (0.0232)	0.1675 (0.1166)	0.0696** (0.0316)	0.0178 (0.0441)
Number of adults	-0.19* (0.11)	-0.1819 (0.131)	-0.1284 (0.2526)	-0.451** (0.2060)	-0.0142 (0.151)
Number of adults squared	0.0130 (0.0130)	0.0105 (0.016)	0.0117 (0.0323)	0.0505* (0.0263)	-0.0102 (0.018)
Central region	-0.772*** (0.11)	-0.842*** (0.1254)	-0.6912*** (0.2644)	-0.91*** (0.1928)	-0.697*** (0.157)
Eastern region	-0.620*** (0.094)	-0.653*** (0.124)	-0.6537*** (0.219)	-0.59*** (0.1346)	-0.699*** (0.1545)
Share of adults paying attention to legal news in the village/community	-0.5487** (0.2240)	-0.4678 (0.2864)	-0.8594* (0.4639)	-0.760** (0.3338)	-0.3327 (0.3784)
Constant	2.4963 (2.4633)	2.5438 (2.9233)	-3.2217 (4.8599)	5.8575* (3.4918)	-0.4961 (3.4337)
Observations	2,407	1,509	898	1,199	1,208

Notes: 1. The dependent variable is working hours of children per day. The definition of child labor is as in note 2 in Table 1.
2. Bootstrapped standard errors with 200 replications in parentheses. *** p<0.01, ** p<0.05, * p<0.1.
3. The exclusion restriction for the Heckman model is the share of adults paying attention to legal news in the village/community.
4. Central region and Eastern region as defined in Figure 1.
5. Data source: the 2010 wave of the China Family Panel Study.