



California Center for Population Research
University of California - Los Angeles

Children's Time Use: Labor Divisions and Schooling in Indonesia

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CCPR-005-05

April 2005

*California Center for Population Research
On-Line Working Paper Series*

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Abstract

Data from the Worker and Iron Status Evaluation is used to examine gendered patterns in children's time in market and nonmarket work, schooling and leisure in Indonesia ($N = 2,929$). Boys spend more time in market work; girls spend more time in nonmarket work. Work responsibilities increase with age as well as gender differentials in children's time use. By age 18, girls spend nearly 1 more hour per day working and enjoy significantly less leisure time; but the gender gap in schooling is not significant, suggesting that parents and children are committed to both work and schooling. Additionally, Tobit regression results suggest that parents' education, household income and rural residency are important predictors of children's labor and schooling time.

Key Words: Family Diversity; Family Roles; Gender; Non-U.S. Families; Time Diary

Methods

Time is an important resource and how children use their time may have significant consequences for educational achievement and the development of gendered roles within the family. Whereas time diary data in the United States have provided insight into the multiple contexts of children's daily lives that create avenues for socialization and learning (Bianchi & Robinson, 1997; Sandberg & Hofferth, 2001), less is known about how children and adolescents in developing countries spend their time.

In many low-income countries, children are expected to become economically productive at an early age. Many studies have examined the consequences of child labor on educational achievement. These studies suggest that the relationship between work and schooling differs across country contexts as well as across families and individuals; in some cases, child labor competes with schooling whereas in others, work is combined with schooling (Arends-Kuenning & Amin, 2004; Ravallion & Wodon, 2000). Less attention, however, has been paid to understanding children's time use in other dimensions of life such as nonmarket work, time spent in school-related activities such as study time, and discretionary leisure.

This paper uses both children's and adolescent's time diaries collected from Indonesia to describe how Indonesian youths spend time in multiple activity contexts. This paper contributes to a small number of time diary studies of adolescent time use set in developing countries (i.e., Arends-Kuenning & Amin, 2004; Ritchie, Lloyd and Grant, 2004). Like previous studies, the current study examines gender differentials in children's schooling and market work. Following Levison, Moe & Knaul (1998), the current study expands traditional definitions of child labor to include both market oriented labor and domestic housework. This paper also combines children's and adolescents' time diaries with detailed demographic information to describe how the characteristics of children and households correlate with time use.

The case of Indonesia provides a complex example of a society that, on one hand, achieved near universal and gender neutral primary schooling by the 1980s and, on the other hand, still may present significant barriers to girls' educational attainment (Kevane & Levine, 2000). In 1973, the Indonesian government began a massive educational expansion program resulting in an increase of primary school enrollment from 60% in 1971 to 83% in 1978 (Duflo, 2001). By 2002, at the time of the survey, net enrollment in primary school was 93%, with no significant gender gap (UNICEF, 2006). Currently, Indonesia follows a 6-3-3 system, meaning 6 years of primary schooling, followed by 3 years of lower secondary and 3 years of high school. Children enter first grade at age 7 and are expected to attend school for 3 hours per day during the first two years of primary school, 5 hours per day until grade 5, and about 6.5 hours for grade 6 and above.

Aggregated statistics, however, conceal variation in educational achievement. Even though children are mandated to attend school until age 15, parents face no penalties for failing to enroll children in school. Girls are also more likely to drop out of school; 60% of primary school dropouts and 70% of secondary school dropouts are girls (UNICEF, 2006). In rural areas, some empirical evidence suggests that adolescent girls are more likely to drop out of school during periods of financial strain (Cameron & Worswick, 2001).

This article uses time diary data collected from Central Java, Indonesia to ask three important questions. First, how is gender correlated to children's time in both market and nonmarket work, schooling and discretionary leisure? Second, do gendered patterns in time use change with age? Third, what family characteristics are related to the way children's time is structured across key domains of daily life?

FACTORS ASSOCIATED WITH CHILDREN'S TIME USE

One universally common pattern observed among adolescents from a diverse sample of low-income countries is that age and gender largely structure their work and leisure

activities (Ritchie, Lloyd & Grant, 2004). Specifically, work responsibilities increase as children mature; additionally, the types of work activities children perform differ by gender, with boys performing more market oriented work and girls performing more domestic labor. Some ethnographic studies suggest these patterns of time use may also exist in Indonesia. There is a common Javanese saying that “women are the ministers of the interior,” meaning that women take the lead in household matters (White, 1977). Moreover, girls are socialized at an early age to become caretakers and housewives (Mulatsih, 1994). This outlook may give rise to early labor divisions that encourages girls to play a greater role in childcare and housework and encourages boys to spend time working on the family farm.

Family size and structure may also be important predictors. Most empirical studies set in developing countries with declining fertility have demonstrated a negative association between sibship size and schooling (for a review of the literature see Kelley, 1996; Lloyd, 1994). Additionally, the gender gap in schooling may be, in part, attributable to parents responding differentially to the resource constraints faced by larger families (Lloyd, 1994). Some empirical evidence from Indonesia show that, in recent cohorts, sibship size is negatively associated with children’s schooling outcomes (Maralani, 2006). On the other hand, a positive relationship between sibship size and child labor has been found in many low-income countries. In urban Brazil, Levison finds that child labor increases with sibship size, especially when pre-school aged children are present (1991). Similar results have been documented in Peru (Patrinos & Psacharopoulos, 1997) and in Malaysia (De Tray, 1983). Less is known about whether this relationship also exists in the Indonesia context.

Net of sibship size, several studies demonstrate that birth order is associated with children’s labor and schooling activities. Later-born children may benefit from greater financial stability, as parents become less credit constrained over time (Parish & Willis, 1993). In Indonesia, one study finds that poor households responded to the 1998 financial

crisis by protecting educational resources already invested in older siblings at the expense of younger siblings (Thomas et al., 2004). Girls' schooling, in particular, may be most sensitive to birth order. One study in Ghana shows that girls with younger siblings are less likely to attend school and more likely to drop out of school (Lloyd & Gage-Brandon, 1994). In the case of Indonesia, some evidence suggests that first daughters, among all other children, are the least likely to be enrolled in school and obtain the fewest years of education (Kevane & Levine, 2000).

Other factors may also correlate with time use. Older parents may be more experienced at managing financial strain and be less likely to depend on child labor to supplement family income. Wealthier families may have more resources to invest in their children's education and rely less on child labor as a source of income (Grootaert & Kanbur, 1995). Finally, children living in rural households may be more prone to working than children from urban households. Family members provide an important source of labor for farm businesses and children become economically productive at earlier ages (Grootaert & Kanbur, 1995). Rural households tend to lack domestic infrastructure such as indoor plumbing, access to clean drinking water and electricity, placing greater demands on girls' time (Desai & Jain, 1994).

METHOD

The data are drawn from the Worker and Iron Status Evaluation—an on-going longitudinal survey of 4,662 households in Central Java, Indonesia. The survey was conducted in the district of Purworejo, a predominantly rural district located east of Yogyakarta on the southern coast of Java. Beginning in January 2002, about 4,000 households, nearly 17,000 individuals, were interviewed every four months over the course of 28 months. In each round, respondents over the age of 8 were asked to complete time

diaries of how they spent the previous, 24 hour period. Children between the ages of 8 to 11 have an adult household member complete their time diary.

Approximately 4,110 children age 8 to 18 were present in the first wave of the data. Because only the first four waves of data were available at the time this paper was written, time use data was pooled across these four waves to obtain an average measure of time allocation. Only children who were 1) present in all four waves of data collection, and 2) age 18 or younger in all waves were included in the sample. As a result, 679 children were excluded, the majority of whom were excluded because they aged out of the sample. The final sample includes 2,928 children between the ages of 8 and 18 (1,576 boys; 1,352 girls) and 1,930 households.

Because the survey was originally designed to study the health and labor productivity of older adults, only households with at least one member over the age of 30 were sampled. Table 1 compares the current sample with a sample of children age 8 to 18 from the 2000 Indonesian Family Life Survey, which is representative of 83% of the population in Indonesia. Table 1 shows that the children in the current sample have better educated parents, have older parents, are more likely to reside in rural areas, and come from wealthier households.

Dependent variables. Time diaries are aggregated across the 4 waves of data and total time is divided into four mutually exclusive categories: *market labor*, *nonmarket labor*, *schooling*, and *leisure*. *Market labor* includes time devoted to economically productive work such as farm work/construction, work as a domestic servant, selling/peddling, office work, and other forms of manual labor. *Nonmarket labor* includes time devoted to caring for other children/elderly/the sick and performing domestic chores such as cooking/cleaning, gathering firewood/water, and other household responsibilities. The *schooling* category includes both time spent attending classes, studying and doing homework. *Leisure* includes the time

children spend in prayer, resting/watching tv/reading, with friends, community activities, playing sports, and other play related activities. *Leisure* measures only discretionary time and does not include time spent in personal care, sleeping or eating. All measures of time use are calculated in hours per day.

Independent variables. The following variables are used as predictors of time use. Sibship variables include the number of children living in the household, the proportion of siblings under age 6, and birth order (1 = *first born child*, 2 = *second born*, etc.). Other family characteristics include mothers' and fathers' years of completed schooling. Rural residency and gender are measured as dichotomous variables (1 = *rural*, *girl*). Logged household wealth measures the log of total household assets such as the value of the house, land, vehicles and household savings. Household wealth is converted from Indonesian rupiah to U.S. dollars. Children's age is measured as a continuous variable and a square term is included to capture nonlinearities in the relationship between time use and age.

The analyses are presented in the following order. First, descriptive statistics of time in both aggregated and disaggregated activities by gender and age are presented. Table 2 presents the percentage of children engaging in each activity and Table 3 presents the total hours devoted to each activity among those who participate. Second, results of Tobit regressions are presented in Table 4. The hours spent in market labor, nonmarket labor, school related activities and leisure are separately regressed on a set of individual and household characteristics. Gender is interacted with age, number of siblings, sibship composition and rural residency to further examine gender differences in time use. All regressions control for whether time diaries were administered for a school day (i.e., Monday through Saturday) or a nonschool day (i.e., Sunday) and the month in which time diaries were administered to control for seasonality effects. Robust estimators were used to adjust for non-independence of error terms among siblings. Third, Graphs 1, 2, and 3 use parameter

estimates from the Tobit regressions to generate predicted probabilities and predicted hours of participation by age and gender, evaluating all variables according to the sample mean.

Two important caveats should be mentioned. First, children who work may differ from those who do not on a set of characteristics that are not readily observable (e.g., motivation, temperament, tastes for work or schooling). To the extent that these unobserved characteristics also influence how children use their time, my estimates are biased. Second, whereas this study analyzes the determinants of time use in labor, schooling and leisure separately, time allocation decisions are most likely made by individuals simultaneously considering all their options jointly. As a result, the findings of this paper should be considered preliminary and one should be cautious of drawing causal inferences.

RESULTS

Participation and Time Spent in Market Oriented Labor Activities

Both Tables 2 and 3 demonstrate that boys are more likely to participate in and devote more time to market work than girls. Overall, 30% of girls participated in market labor and spend, on average, 1.29 hours per day working, whereas 48% of boys engage in market work and spend 1.55 hours per day working. Both the likelihood of working and the amount of market oriented labor increases with age. Among children 8 to 11 years old, a relatively low proportion of children perform market work, 16% of girls and 22% of boys; they also spend less than 1 hour per day on market labor. By age 12 to 15, the majority of boys perform market-oriented labor. Among 16 to 18 year olds, 35% of girls and 62% of boys participate in the market. Once *market labor* is disaggregated, one can see that *farm related work* and *construction/manual work* comprise the two major types of market activity children perform.

Participation and Time Spent in Nonmarket Oriented Labor Activities

Contrary to market labor participation, the vast majority of children engage in nonmarket labor across all age categories. Additionally, girls are also more likely to

participate in nonmarket work than boys. At the youngest ages, 88% of girls work and 68% of boys work; 97% of girls 12 to 15 and 16 to 18 work; 78% of boys aged 16 to 18 and 74% of boys aged 16 to 18 work. Gender differences in the amount of time spent performing nonmarket labor are also statistically significant across all age groups. Girls spend more time performing nonmarket labor than boys, with this gap increasing with age; by age 12 to 15, the gender gap in nonmarket work grows to nearly 1 hour per day.

Tables 2 and 3 demonstrate that most of the gender differences are due to girls' time use in *cooking/cleaning/chores*. Overall, 89% of girls perform domestic chores compared to 54% of boys. Among children that spend time in *cooking/cleaning/chores*, girls spend 1.28 hours and boys spend 0.68 hours per day performing domestic chores. Gender differences in both the percentages of children engaging in domestic chores and the conditional time spent performing these activities are statistically significant across all age groups. There is a significant but small difference in the percentage of boys and girls who care for *children/elderly/sick*. Both boys and girls, however, devote the same amount of time caring for family members, approximately 1 hour per day.

Participation and Time Spent in School Related and Leisure Activities

Time diary data show that there is near universal school attendance among boys and girls up to age 15. Among children age 16 to 18, the vast majority of children attend school, although attendance rates fall to 81% for girls and 77% for boys. Gender differences in attendance rates are statistically significant at the aggregated level, suggesting that girls are more likely to remain enrolled in school than boys. Table 2 also suggests that girls tend to spend more time attending school and performing schoolwork, with the gender gap in schooling activities growing to 1.03 hours per day by age 16 to 18.

Table 1 shows that all children spend some time in discretionary leisure, with the majority of children spending time *praying, resting/watching tv/reading, spending time with*

friends, and *sport/play activities*. Table 2 shows that, overall, boys spend approximately 1 more hour per day on discretionary leisure than girls with this gender gap increasing with age; among children age 8 to 11, boys spend 0.59 hours more than girls; among children age 12 to 15, boys spend 1.14 hours more than girls; among children 16 to 18, boys spend 1.54 hours more per day than girls. Table 2 shows that these differences are partly due to boys spending more time socializing with friends and in play/sport activities.

Tobit Estimations for Market and Nonmarket Labor

Graphs 1 and 2 show the predicted values of market and nonmarket labor participation and the predicted hours spent in market and nonmarket labor for boys and girls (conditional on participation), respectively. Predicted probabilities were evaluated by setting all variables to the sample mean. Both graphs show that age and gender are important correlates of child labor. Overall, Graphs 1 and 2 show that children's labor responsibilities increase with age. Additionally, clear gender divisions are observed; girls perform more nonmarket work and boys perform more market work. Gender differentials, however, in market and nonmarket work do not follow the same trends over time. The gender gap in market work is greatest among children age 13 to 16. On the other hand, the gender differences in nonmarket responsibilities steadily increases over time. At the earliest ages, the gender gap in total hours spent in nonmarket work is no more than 30 minutes per day; by age 17, girls spend approximately 1 hour more per day performing nonmarket work.

Tobit results in Table 4 suggest modest associations between sibship size and composition with work responsibilities. The results show that children with more siblings have a greater underlying propensity to perform market work than children with fewer siblings whereas children with a greater proportion of pre-school siblings perform more nonmarket work. Children with more educated mothers tend to spend less time working in

both market and nonmarket labor; fathers' education, however, is only significantly correlated with children's market work.

Rural residency is differentially associated with boys' and girls' work responsibilities. Boys from rural households spend more time in market work and less time in nonmarket work than boys from urban areas, whereas girls from rural areas spend less time in market work and perform more nonmarket work relative to girls from urban household. Rural households place greater demands on boys' involvement in home production/farm work and girls' time in domestic responsibilities. Household wealth is only significantly correlated to nonmarket work.

Tobit Estimations for Schooling and Leisure

Graph 3 presents the predicted hours spent per day on school-related activities (conditional on participation) and leisure activities for boys and for girls. Schooling relates nonlinearly with age, with the amount of schooling peaking at age 13. The total time boys and girls dedicated to all schooling-related activities is significantly less than the number of hours children are legally required to attend school. This difference is even greater in light of the fact that time diary estimates of schooling time includes both the total children spend attending school and amount of time dedicated to schoolwork. For example, among youths aged 16 to 18 who attend some amount of schooling, both boys and girls spend at least 2 hours per day less than the statutory requirement of 6.5 hours for high school students.

Table 4 shows that schooling time is correlated with children's age, parental education and rural residency, but not with a child's gender and sibship composition. This provides some descriptive evidence that households are not concentrating educational investments on a select few at the expense of others. Rather, children from households with higher educated parents and households with greater financial resources spend the most time in educationally enriching activities, irrespective of sibship size, sibship composition or gender.

Graph 3 also presents the predicted values for children's leisure time. Across all age groups, boys spend more time in leisure activities than girls and the gender gap in leisure time increases with age. At the oldest ages, boys spend nearly 2 hours more per day in leisure activities than girls. Sibship composition and other household characteristics are not significantly associated with patterns in children's leisure activities.

DISCUSSION

This study contributes to the small but growing time diary literature set in developing countries. The observed patterns of time use among Indonesian children and youths in the sample mirror the overall trends described in the multi-country time use study in Ritchie, Lloyd, and Grant (2004). The three universal patterns that emerge in the current study and in Ritchie, Lloyd, and Grant (2004) are the following: (1) There are clear gender divisions in labor activities with boys performing more market work and girls performing more nonmarket work; (2) Children's labor responsibilities increase with age; (3) When market and nonmarket work are combined, girls across all age groups work more than boys, leaving girls with less leisure time.

Analysis of time use across age groups suggests that gender differentials in time use grow substantially over the life course. At the youngest ages, the gender gap in total time devoted to both market and nonmarket work is no more than 20 minutes per day. By age 18, the difference is nearly 1 hour per day. This pattern seems to be due to the fact that whereas the gender gap in market work tends to diminish over time as both girls and boys enter the labor force, the gender gap in domestic work significantly increases with age.

Gender divisions in labor activities, however, do not correspond to trends in children's schooling. Several studies have documented gender biases in children's schooling patterns in Indonesia (Cameron & Worswick, 2001; Kevane & Levine, 2000; UNICEF, 2006). In contrast, this study demonstrates that girls are as likely, if not more likely, to attend school

and dedicate significantly more time to schooling activities than boys.

Because girls dedicate more time to both schooling and work, they enjoy substantially less leisure than boys. On average, boys spend more than one hour more each day performing leisure activities, such as socializing with friends, playing sports and engaging in community activities, than girls.

Overall, the findings provide descriptive evidence that parents are not concentrating educational investment on a select few at the expense of others. Rather, the results indicate that children, especially girls, devote a substantial amount of time to both schooling and work, suggesting that parents and children are committed to *both* types of activities. To the extent that parents and children are trading off schooling for work, this paper is limited in its ability to speak to this issue. The regression results show that parents' education, rural residency, and household wealth are all associated with patterns of time use. In contrast, sibship composition is only modestly associated with children's work and schooling.

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Table 1

Comparing Sample Characteristics with the Characteristics of Children, Aged 8 to 18, from the 2000 Indonesia Family Life Survey (IFLS3)

Variables	WISE Sample		IFLS3	
	% or <i>M</i>	<i>SD</i>	% or <i>M</i>	<i>SD</i>
Child's age	12.65	2.92	12.75***	3.12
Gender (= 1 if girl)	47%		48%*	
Number of siblings	2.82	1.23	2.78***	1.35
Log wealth	7.2	1.56	5.78***	1.40
Rural	83%		42%***	
Mom's years of education	6.24	3.62	5.58***	3.89
Dad's years of education	7.24	3.73	6.56***	4.05
Mom's age	41.46	6.34	39.50***	7.07
Dad's age	47.13	7.77	46.27***	8.50
Proportion of children <6	0.15	0.20		
Birth order (= 1 if first born)	1.92	1.00		
<i>N</i>	2,928		7,853	

Note: Two tailed t-tests compare the WISE sample with the weighted sample of children 8 to 18 from IFLS3.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2

Percentage Engaging in Aggregated and Disaggregated Activities by Age and Gender, Aged 8 - 18 ($N = 2,929$)

Variable	8 to 11 Years ($N = 1,128$)		12 to 15 Years ($N = 1,192$)		16 to 18 Years ($N = 609$)		Total ($N = 2,929$)	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
Aggregated Market Labor	16	22 ***	38	58 ***	35	62 ***	30	48 ***
work on farm/homestead	6	18 ***	12	45 ***	12	44 ***	10	36 ***
selling/retail	3	1 **	4	4	11	6	5	3 ***
domestic servant	0	0	7	8	0	0	1	0
construction/manual labor	7	5	16	17	21	48 ***	13	0
office work	0	0	4	3	2	1	7	5
Aggregated Nonmarket Labor	88	68 ***	97	78 ***	97	74 ***	93	73 ***
care for children/elderly/sick	50	45	37	36	19	17	37	34 **
cook/clean/chores	79	37 ***	97	61 ***	96	67 ***	89	54 ***
gathering firewood/water	4	4	8	10	6	8	6	7
other hh work	1	1	2	4	2	5	2	3 **
Attending Class/Studying	99	99	97	95	81	77	95	92 ***
Aggregated Leisure	100	100	100	100	100	100	100	100
pray	94	92	93	88 **	94	81 ***	93	88 ***
rest/watch tv/ reading	100	100	100	100	100	100	100	100
spending time with friends	53	44	62	68 ***	64	90 ***	59	66 ***
community activities	17	12 **	20	18	16	25 ***	18	18
sport/play	93	98 ***	62	82 ***	8	43 ***	0	79 ***

Note: Two tailed t-tests compare the means between boys and girls.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3

Hours per Day Spent in Aggregated and Disaggregated Activities Conditional on Participation in Each Activity by Age and Gender, Aged 8 - 18 ($N = 2,929$)

Variable	8 to 11 Years ($N = 1,128$)		12 to 15 Years ($N = 1,192$)		16 to 18 Years ($N = 609$)		Total ($N = 2,929$)	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
Aggregated Market Labor	0.72	0.87	1.04	1.37 ***	2.29	2.57 **	1.29	1.55 ***
work on farm/homestead	0.68	0.88	0.76	1.22 ***	0.89	1.75 **	0.77	1.31 ***
selling/retail	0.79	0.92	1.38	0.76	2.85	1.41	1.76	1.30
domestic servant	0.00	0.00	0.76	1.13	0	0	0.76	1.08
construction/manual labor	0.70	0.46 *	1.09	1.01	2.08	1.84	1.31	1.31
office work	0.00	0.00	0.31	0.35	2.54	0.81	0.39	0.33
Aggregated Nonmarket Labor	1.21	0.92 ***	1.85	0.95 ***	2.21	1.16 ***	1.68	0.99 ***
care for children/elderly/sick	1.04	1.10	0.98	0.94	1.03	1.10	1.02	1.03
cook/clean/chores	0.68	0.33 ***	1.45	0.58 ***	1.99	0.89 ***	1.28	0.68 ***
gathering firewood/water	0.17	0.22 *	0.23	0.28	0.39	0.45	0.24	0.31
other hh work	0.25	0.39	0.31	0.55 *	0.36	0.71	0.31	0.59 **
Attending Class/Studying	4.33	4.00 ***	4.98	4.52 ***	5.00	3.97 ***	4.70	4.21 ***
Aggregated Leisure	7.53	8.12 ***	6.36	7.50 ***	6.86	8.4 ***	6.86	7.93 ***
pray	1.58	1.47 **	1.34	1.41	1.21	1.35	1.41	1.42
rest/watch tv/ reading	3.60	3.42 **	3.81	3.70	4.29	4.14	3.82	3.7 **
spending time with friends	1.00	1.15 **	0.92	1.49 ***	1.20	2.62 ***	1.01	1.74 ***
community activities	0.62	0.83 **	0.89	0.97	1.42	1.40	0.88	1.07 ***
sport	0.59	0.64	0.56	0.74 **	0.76	0.82	0.59	0.73 ***
play other	1.92	2.73 ***	0.90	1.59 ***	0.76	0.82	1.52	2.09 ***

Note: Two tailed t-tests compare the means between boys and girls.

* $p < .05$. ** $p < .01$. *** $p < .001$.

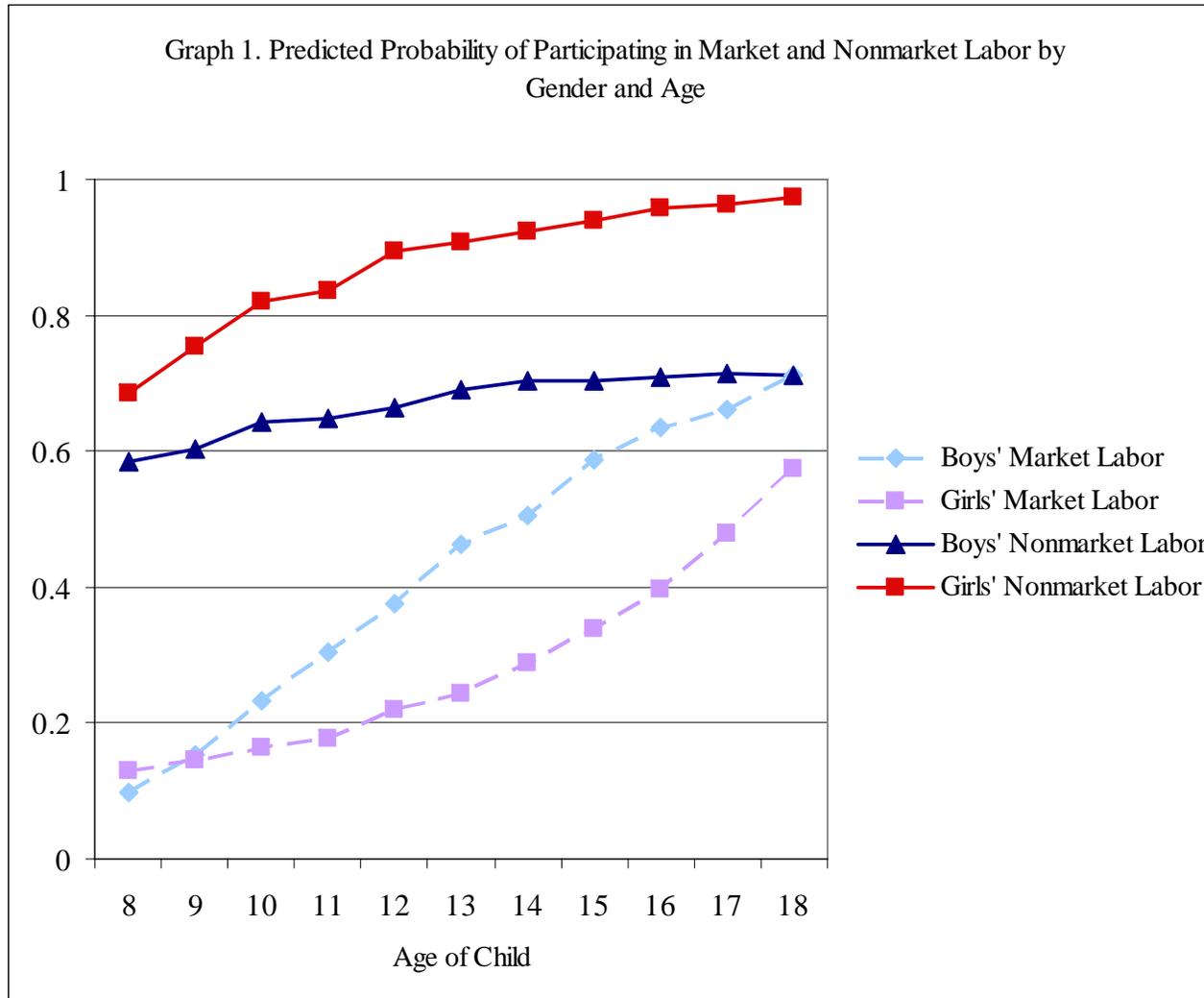
Table 4

Summary of Tobit Regression of Variables Predicting Hours per Day Devoted to Market Labor, Nonmarket Labor, Schooling and Leisure, Aged 8 - 18 ($N = 2,928$)

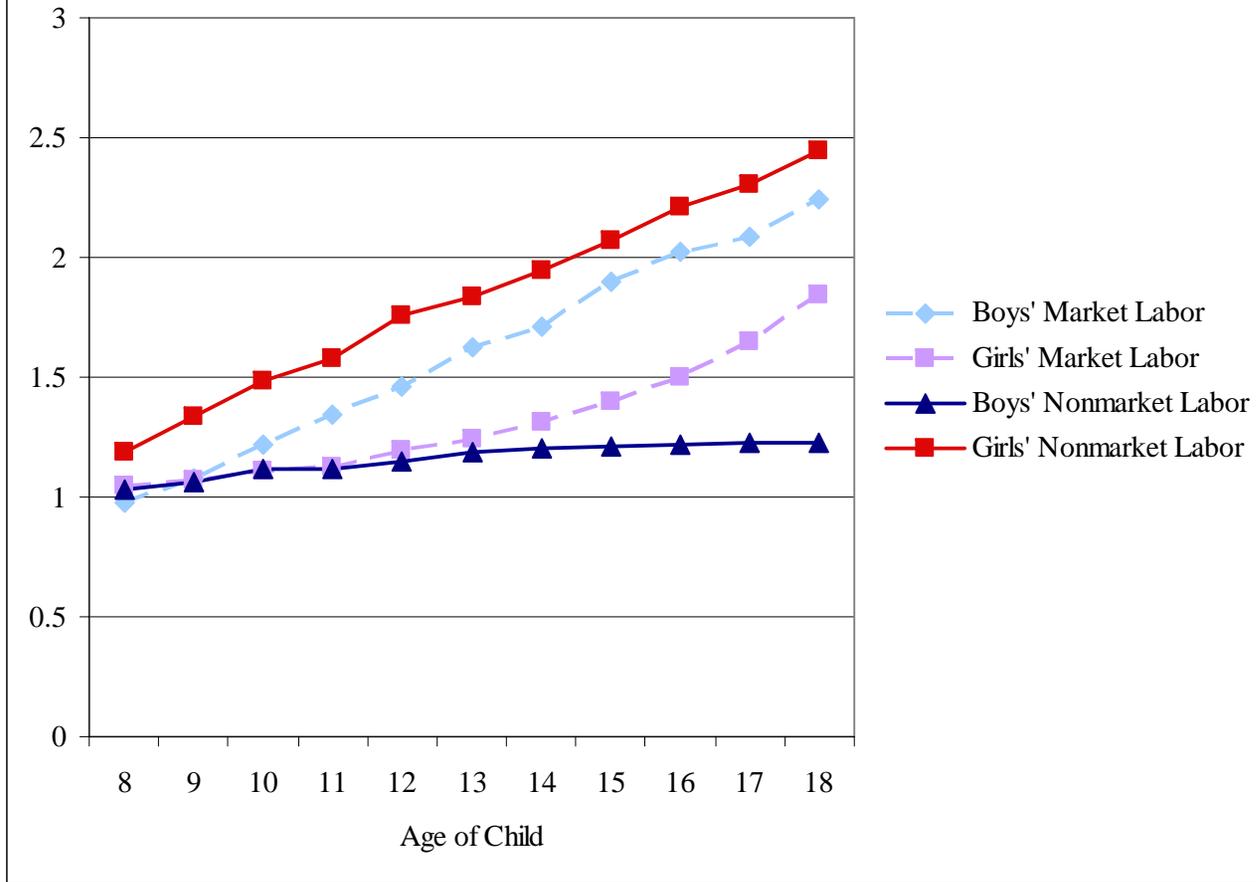
Variables	Market Labor		Nonmarket Labor		School		Leisure	
	b	SE	b	SE	b	SE	b	SE
Gender of child (1 = Female)	8.82***	2.48	-1.49	0.97	-1.88	1.38	0.4	1.33
Child's age	0.94***	0.22	0.16	0.10	1.53***	0.15	-1.19***	0.15
Child's age square	-0.02**	0.01	0	0.00	-0.06***	0.01	0.05***	0.01
Number of siblings	0.25**	0.09	-0.02	0.05	-0.06	0.08	0.09	0.06
Proportion of siblings <6 yr	0.3	0.44	0.72***	0.21	-0.33	0.34	-0.57	0.31
Birth Order	-0.09	0.12	0.06	0.06	-0.09	0.10	-0.02	0.08
Father's education (yrs)	-0.06**	0.02	-0.01	0.01	0.04**	0.01	-0.02	0.01
Father's age	0	0.01	-0.01	0.00	0	0.01	0.01	0.01
Mother's education (yrs)	-0.07**	0.02	-0.02**	0.01	0.07***	0.01	-0.02	0.01
Mother's age	0	0.01	0	0.01	0.01	0.01	-0.01	0.01
Rural (1 = if rural)	0.73***	0.23	-0.11	0.09	-0.15	0.14	-0.14	0.15
Log household wealth	0.01	0.03	-0.07***	0.02	0.05*	0.02	0.04	0.02
Gender x age	-1.15**	0.39	0.19	0.15	0.23	0.23	-0.06	0.22
Gender x age squared	0.04**	0.02	0	0.01	-0.01	0.01	0	0.01
Gender x number of siblings	-0.04	0.16	0.11	0.07	0.03	0.11	-0.22**	0.09
Gender x proportion < 6yrs	-0.89	0.74	0.11	0.32	0.32	0.48	0.27	0.43
Gender x birth order	-0.3	0.20	-0.05	0.09	0.1	0.14	0.14	0.12
Gender x rural	-0.89**	0.31	0.39**	0.13	0.07	0.19	0.23	0.17
Constant	-26.77***	1.87	-0.18	1.64	-12.14***	3.92	20.00***	2.66
Log likelihood	-2,760.97		-3,833.61		-5154.35		-5270.07	
N (censored)	1,451		506		190		0	

Note: All four regressions control for whether time diaries occurred during a school day or a nonschool day and the month during which time diaries were administered. Robust standard errors are presented.

* $p < .05$ ** $p < .01$. *** $p < .001$.



Graph 2. Predicted Hours Per Day in Market and Nonmarket Labor by Gender and Age



Graph 3. Predicted Hours Per Day in Leisure and School by Gender and Age

