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Work of Underage Individuals in Pakistan: Social and Economic Contributing Factors



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Abstract: Work of underage people or child work denotes the engagement of children in any type of activity that divests them from their childhood. The present study piloted to investigate the social and economic determinants of work by underage people in Pakistan. The study uses probit and logit estimation techniques for the purposes of analysis. The study found that education of the underage individuals and of the household head condenses the probability of work by under agers. The wages of household head indicates the financial situation of the household. This exerts inverse impact on the labor by under agers.

Key Words: Child, labor, Wages, Education, Enrollment, Labor Force Survey, Pakistan

JEL Classification: J00, J01

Introduction

Work by underage individuals or child work is common phenomenon in the developing countries. There are various causes of child labor and they have been changing over time. Child work is something that deprives them from enjoying their childish life. It can be defined as the work by the children who are at the initial years of their life. Since the occupations in our country are based on caste system, we are neglecting the childhood, education, happiness and rights of our children. Majority of children work/ under agers are unpaid family helper particular in agriculture sector.

The inspirational study by Basu and Van (1998) presented luxury axiom and the substitution axiom by studying the association

between child and adult labor markets. These axioms have been studied by other studies. The concepts of these axioms are analyzed in terms of income decisions, which show that parents will send children to market work if they face a tight income constraint. The substitution axiom assess whether child labor and adult labor can substitute each other. The axioms suggest that child labor becomes a need if family income is too low for the sustenance of the family or if the income of the adults declines beyond a certain level. People do not have proper access to basic wants of life like foodstuff, accommodation and health facilities etc. Many people live in poor living areas. Parents are unable to bear children needs. Basu and Van (1998) examined that children work as a result of parents' too low

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wage rates that can not bear the household sustenance cost.

Work by underage individuals or child labor occurs when parents adopts it as a substitute for their vicious endowments. Poverty forces parents to deal their children as helper in order to earn income to meet family expenditures. They cause transfer of income from children to parents. This also happens as a substitute for borrowing that is transferal of income from future to the present time period. Labor income of children also acts as a non-labor income for parents and other dependents of the family. According to Khan (2001), parents gratify their children to work to improve household economic status.

According to Gilani, Zahoor & Iqbal (2022), occurrence of child labor stops a child to attain education and hereafter denies him from numerous essential rights preserved in the constitution, the several laws and the international treaties to which Pakistan is a party.

About 200 million children are engaged in various kinds of activities. More than 90 percent of child labor is accounted for Asian and African countries. Children are mainly engaged in domestic work, child care and farm activities. The study found that about 60% of child labor prevails in agriculture sector globally. The situation is also severe in service sector. Involvement of boys is much higher than girls in child labor. According to the study, about 100 million male under age individual are involved in marker work than 32 million girls for 5 to 17 years of age worldwide.

In Pakistan, child work is tremendously high. Children are usually absorbed in manufacturing, agriculture, transportation, carpet weaving and construction. The major part of working children (about 69%) lives within the rural where as 31% lives in industrialized zone. Agriculture is family occupation in Pakistan. Children along with their parents and other family members are used to work on agricultural fields.

Even though the child work is of vital meaning in the contemporary world, there has

been a little examination of this problem. The real problem is to well comprehend the determinants of child work to understand its inferences. Lack of proper means of income makes the parents unable to realize the significance of children education. Education can make the lives of children much easier during the years to come. Education raises the social and economic status of the children in the country.

Previous research basically examined the impact of household income on child labor (for example, Siddique, 2013; Gayathri, 2017). The studies observed that poverty is not only the factors which forces children to labor. There are other elements that push children to market work. However, the present study investigates the association between different social and economic determinants and under age work. The objective of the study to highlight the relation between different household social and economic determinants (like heads' wage rate, heads' occupation, education of children and household heads) and child labor in Pakistan. The main contribution of the study is the detailed analysis different socio-economic causes of child work.

The study uses Pakistan LFS (2018-19). Logit and probit models have been employed for estimation. The study used computer software Stata14 for the estimation purpose.

The study is organized as follows; the segment 2 gives the literature review. Section 3 provides data and methodology and section 4 discusses estimation results. The study is concluded in section 5.

Review of Literature

Child work has been a persistent issue for the developing economies. There are various causes of child labor and they a have been changing over time. Child labor deprives children from enjoying their childish life.

A basic household decision making model by Becker (1965) undertakes that a household wants to maximize its satisfaction level. Schultz (1997) summarized this model where

utility is a function of number of children, leisure of children and parents and complex consumption goods. The household consumption goods are produced by market purchased commodities and household time. Input of time is provided by mother or children. Household income is generated by labor market work as a wage laborer. Other factors used in household production are physical assets of the family (parents and children). Household members allocate time between market and non-market work.

An important study by Basu and Van (1998) presented luxury axiom and the substitution axiom by studying the association between child and adult labor markets. These axioms have been studied by other studies. The concepts of these axioms are analyzed in terms of income decisions, which show that a family will send the children to labor market work if family faces a tight income constraint. The axioms suggest child labor as a need if family is too low for the sustenance of the family or if the income of the adults declines beyond a certain level.

Mamadou (2009) analyzed that boys work in labor market and girls are mainly involved in household work. Labor market work of girls largely remains invisible. Parents usually prefer male children to send to school and female children lose out of school. The study examined that boys work for longer hours than girls in Pakistan. Children are poor in rural areas than in urban areas.

Based on National Socioeconomic Survey (2005-2007), Binti, Alia and Arabsheibanib (2016) analyzed the supply side causes of child work in Indonesia. The objective of the study was to analyze character of household head in decision making process. The study found the existence of luxury axiom projected by Basu and Van (1998). The study found that children intend to work more as they grow older. Male children are further involved in labor market work as compared to female children. Those belonging to rural areas participate more in labor market. Educated parents are less willing to allocate their children to labor market. With reference to

luxury axiom, household income is inversely related to working decision of the children. The probability of children working in the market decrease with the presence of working adults in the family. Finally, it is found that the probability of child work varies by the province. Teniku & Verheyden (2008) examined that older children are the source of added family income when income constraints become tighter in poor families. Older children work more than younger.

A study by Tang et al. (2016) presented that about 8% of children aged (10-15) years were working in China. About 90% of child laborers worked along with schooling. The results indicated that participation in labor market in labor market has positive relation with school dropout rate. In addition, child labor is high in rural areas. However, economic status of the households are inversely related with intensity of child work.

Gayathri (2017) identified that child labor deprives them from their childhood. The study explained that economics of child labor have undesirable impacts on human capital growth. Likewise, Hamenoo (2018) examined child labour in Ghana based on qualitative data. The results revealed that reasons of child work included poverty and absence of parents. The study showed that children's involvement in selling on roads could inversely affect their health and education.

Hafeez & Hussain (2019) investigated the effect of education on work of children in Pakistan. The study found a strong negative relationship between child work and variable of education like children education, education of head and enrolment of children. Moreover, the study suggested that enrollment of children; educational years of children and head's educational status have strong negative impact on child work. More age exert positive on child labor whereas joint families has inverse effect on it.

Kayen (2023) examined how child labor, prevalent in Afghanistan's two most populous provinces (Nangarhar & Kabul), affected children's development. The development of working and non-working children differs;

working children have fewer dietary alternatives because most families in the nation live in poverty and cannot give their children the nutritious food they need for growth.

According to the study, physical immaturity contributes to a weakened immune system, malnutrition, bodily aches, and other issues. In this aspect, children who work have a higher risk of falling unwell and developing into risk factors for both themselves and the community.

Similarly, Amedu & Ossai (2023) analyzed that child labor denies children of similar age form the development of the possible. The study provided a detailed review of literature on child labor their school enrolment. The study found that child labor has negative

relation with their education. This study, however, analyzed the relation between various socio-economic factors and child work in Pakistan.

Data and Analysis

The data of the study based on Pakistan LFS data. The study uses children aged 10-14 years. The sample of the study comprises of 5802 children. Where 52 percent are non-workers and 48 percent are working children.

Table 1 provides different household characteristics of child work. It is found that child work decreases with the increase in father's education level. We find that the prospects of work by underage workers are high in joint families, Punjab, Sindh and KPK.

Table 1:

Child Work Distribution

	Unemployed Children	Employed Children	Total
Gender			
Female	51	49	40
Male	45	55	60
Enrollment of children			
Enrolled	15	85	53
Not enrolled	84	16	47
Head's Education			
No formal education	16	84	38
Primary/middle Level	60	40	29
Secondary Level	68	32	26
Intermediate level	86	14	4.00
Bachelor and Higher	87	13	2.00
Family system			
Joint family	51	49	74
Nuclear family	38	67	26
Region			
Rural	38	62	75
Urban	78	22	25
Province			
Punjab	31	69	34
Sindh	08	92	16
Khyber Pakhtunkhwa	17	83	4.00
Baluchistan	72	23	45

Table 2 shows that child labor increases with age of children. This reveals that children are more likely to work over time. Table 3 and

other tables show row totals in round brackets and column totals in square brackets.

Table 2

Distribution of Children by Age

Years of Age	Unemployed children	Employed children	Total
=10	759 (72.56)	287 (27.43)	1046 [18.02]
11-12	993 (51.42)	938 (48.57)	1931 [33.27]
13-14	1006 (35.59)	1820 (64.40)	2825 [48.68]
Total	48%	52%	5802

Table 3 show the educational distribution of children. Data reveal that less educated children are more oriented to work than less educated children. It is found that 60%

children are employed with education below primary level whereas those with middle level education are about 41% employed.

Table 3

Educational Distribution of Child work

Level of Education	Unemployed Children	Employed Children	Total
below primary Level	1511 (39.91)	2275 (60.08)	3786 [65.24]
primary level and above	1277 (63.31)	770 (38.18)	2016 [34.76]
Total	2758 (47.54)	3044 (52.46)	5802

Table 4 indicates the distribution of child work and occupation of household heads. It is observed that household heads belonging to professional and assistant professional are less likely for child labor as compared to those

heads who belong to agriculture, sales work and elementary occupation. Child labor is high in the households where he/she is associated to agriculture and related work or when relates to elementary or unskilled work.

Table 4

Child Work by Heads' Occupation

Occupation	Unemployed Children	Employed Children	Total
Professionals	253 (60.52)	165 (39.47)	418 [7.20]
Sales work	724 (47.32)	806 (52.67)	1530 [26.36]
Agriculture work	974 (46.96)	1100 (53.03)	2074 [35.74]
Elementary	807 (45.31)	974 (54.68)	1781 [30.69]
Total	2759	3044	5802

Occupation	Unemployed Children	Employed Children	Total
	(47.54)	(52.46)	

Table 5 shows distribution of child work by heads' income. The table reveals that possibility of child work declines with increase in heads' income. For example, 94% children are unemployed for the heads' wages

up to and above Rs.10000/month. This reveals that increase in heads' wages lowers the prospects of children work. This indicates that children with strong economic background have less prospects to work.

Table 5

Child Work and Wages of Household Head (Rs. Per month)

Income level	Unemployed Children	Employed children	Total
<2000	10 (0.71)	1313 (99.31)	1323 [22.79]
2000-5000	379 (35.14)	1124 (74.78)	1503 [25.90]
6000-10000	1569 (75.83)	402 (24.17)	1971 [40.86]
10000 and above	578 (94.44)	34 (5.56)	612 [10.55]
Total	2758 (47.54)	3044 (52.46)	5802

Methodology

There is a wide literature on the association between child work and its social and economic determinants. However, a great deal of previous work is based on household decision making models for labor force and is based on intra-household bargaining models of Becker (Becker, 1965). According to unitary household model developed by Becker, child work results from unequal bargaining associations. Since the children have little bargaining power, both parents and employers can proficiently bargain over wages of children.

Model specification

In this study, child work is employed as dependent variable. The explanatory variables are age, education, gender, head's occupation, family size, head's wages, province and region. The variables are selected on the basis of literature review. T- statistics can indicate the significance of variables in the model.

The Model:

Child work = f (age, child gender, head's wages, child enrolment, child education, heads' education and occupation, type of family, province, region)

Child labor increases with age. Older children work more than younger children. Underage boys work more than underage girls. The underage boys are considered stronger physically than female children and therefore do more work. They can work in industries, restaurants, hotels and transportation units, whereas female children can comfortably work in agricultural fields and household tasks.

The enrollment and education level of children and heads are likely to have inverse effect on children work. This is so because the education brings awareness among people and therefore lowers the intensity of child work. According to Ravallion & Wodon (2000), children labor force participation decreases with higher enrolment rate. Educational activities free the children from engaging in market work. The economic activity will exert adverse impact on educational acquirement.

For example, children might miss school either due to market work or due to house work. It may be argued that educational success will have considerable inverse effect on child labor. Similarly educational level of the household heads may exert robust inverse effect on children. The possibility of child market work would be lower for highly educated heads, (Emerson & Souza, 2002).

Similarly, the increase in the wage rate of heads strengthens the economic status of the heads. The head's wages have strong inverse relation with the child work. The heads earning appropriate wage are reluctant to engage their children in market work. The heads having low profile work earn low wages. The market forces exert further downward stress on wage rate. (Hussain, Saud & Khatak, 2017).

Occupation of the household head indicates the social and economic status of the household. The heads belonging to high profile occupations are reluctant to engage their children to market labor. Those belonging to low profile jobs send children to labor market. Family occupation like agricultural activities and business also lead towards under agers work.

Likewise, social and economic disparities exist among the four provinces of Pakistan. Different factors are causing supply of child work in these provinces. Child work has been a composite rural areas activity. Children are mainly working in farm houses along with their family members. Numerous children are working in agriculture sector. In rural areas, households having low income level may raise the domestic earnings by engaging their children in farm and agricultural activities. Rural children work longer hours than children in urban areas, (Shujaat, 2007).

List of Variables

AGE = age of children in years

MALE = dummy variable for gender

Wages = wages of family head in rupees

ENR_{child} = Enrolment of children

EDU_{child} = Years of education of children

EDU_H = Years of education of family head

SALE = Sale workers (dummy variable)

AGRI = Agriculture workers (dummy variable)

ELEMNT = Elementary worker (dummy variable)

JOINT = Dummy variable for type of family

Province = Dummy variable for provinces

Urban = Dummy variable for region

Model 1: Economic Factors for Under Age Workers

Dependent variable takes a value = 1 for working child and 0 for out of work child. Child labor in relation to child's age, child's gender, head's wages, head's occupation, child's enrollment and years of education, family size, province and region analyzed.

$$\begin{aligned} \text{CHILD_WORK} = & \beta_0 + \beta_1 \text{AGE} + \beta_2 \text{MALE} \\ & + \beta_3 \text{Wages}_{\text{Head}} + \beta_4 \text{SALE} \\ & + \beta_5 \text{AGRI} + \beta_6 \text{ELEMNT} \\ & + \beta_7 \text{JOINT} + \beta_8 \text{PROVINCE} \\ & + \beta_9 \text{URBAN} + U_i \end{aligned} \quad (1)$$

Hypothesis of the study

- H_{01} = No association exists between different economic characteristics and child work
- H_{11} = There exists significant relationship between different economic characteristics and child work.

Model 2: Social and Economic Factors for Under Age Workers

$$\begin{aligned} \text{CHILD_WORK} = & \beta_0 + \beta_1 \text{Age} + \beta_2 \text{MALE} \\ & + \beta_3 \text{Wages}_{\text{Head}} + \beta_4 \text{ENR}_{\text{CHILD}} \\ & + \beta_5 \text{EDU}_{\text{CHILD}} + \beta_6 \text{EDU}_{\text{Head}} + \beta_7 \text{SALE} \\ & + \beta_8 \text{AGRI} + \beta_9 \text{ELEMNT} + \beta_{10} \text{JOINT} \\ & + \beta_{10} \text{PROVINCE} + \beta_{12} \text{URBAN} + U_i \end{aligned} \quad (2)$$

Hypothesis of the study

- H_{01} = No association exists between

different socio-economic characteristics and child work

- H_{11} = There exists significant relationship between different socio-economic characteristics and child work.

The non-linear estimation techniques like logit and probit models are used to estimate the model rather than applying the linear probability model. The linear probability model disrupts the homoscedasticity and normality of errors which results in unsound errors.

Logit Model

Assume that child work depends upon an unobservable utility index I_i^* which depends upon descriptive variables X_i . According to Gujarati (2009),

This index states as follows

$$I_i^* = BX + ui \tag{3}$$

Where i is i th individual and ui is error term. Assume that *

$Y_i = 1$ for under age workers' work if $I_i^* \geq 0$

$Y_i = 0$ for under age workers' work if $I_i^* \leq 0$

The logistic probability equation:

$$\frac{P_i}{1-P_i} = \frac{1+e^{z_i}}{1+e^{-z_i}} = e^{z_i} \tag{4}$$

z_i lies between $-\infty$ to $+\infty$, and P_i ranges between $0 - 1$. P_i is non-linearly related to z_i . Now $\frac{P_i}{1-P_i}$ is the odds ratio of likelihood that a child is working to the likelihood that a child is not working.

Probit Model

In probit model random error term has normal distribution. The likelihood that I_i^* is less than or equal to I_i , can be calculated from the standard normal cumulative distribution function (CDF), (Gujarati, 2009) like;

$$P_i = P_r(Y = 1|X) = P_r(I_i^* \leq I_i) = P_r(Z_i \leq BX) = F(BX) \tag{5}$$

Empirical Results and Discussion

We have estimated two models for child work. It is shown from results that signs and implications of all variables are correct in these models. This shows that all variables play a vital part to examine child work. Magnitude of R^2 is found realistic in all models. Log likelihood also indicates that our model is statistically significant.

Model 1: Economic Factors for Under Age Work

Table 6 explains the results of logit and probit models for economic factors and child work. Both models give similar results with slight difference. So results of both can be interpreted in similar way. The marginal effects are calculated and interpreted to explain the relationship between independent variables and the child labor.

The results indicate that under age workers are more inclined to market work over time. The children become matured with time and can earn more as a result. It is found that one year increase in age increases child work by 11 percentage points. Tenikue & Verheyden (2008) examined that elder children are the only way of added family income when income constraints become tight in low income families. Older children work more than younger children.

Results indicate that male children work more both in probit and logit models. That is they are 5% highly likely to take part in labor market than female children. This is so because; the males are physically stronger than females and therefore can perform better labor in the market.

According to Hafeez (2013) male members have higher probability to participate in economic activities than their female counterparts.

It is observed that wages of household's heads have adverse impact on child work in both models. This indicates that probability of

child work becomes lower with growth in income of heads. This is so because, the higher wages make the family financially stronger and so they are hesitant to send their children to the market for labor. Results by Husain, Saud & Khatak (2017) present similar results. Hafeez & Ahmad (2002) found inverse impact of

household income on labor force participation rate. According to Hafeez and Ahmad (2002), household income is inversely related to labor force participation of adult women workers. Similar results were found by Gondal (2003) for unmarried young workers.

Table 6

Estimates for Under Age Work in Pakistan

Variables	Logit model		Probit model	
	Coefficients	Marginal effects	Coefficients	Marginal effects
Intercept	-5.841 (-13.02)*		-3.301 (-13.18)*	-
Children Characteristics				
AGE	0.442 (16.73)*	0.110	0.248 (16.73)*	0.110
MALE	0.198 (3.50)*	0.051	0.118 (2.60)*	0.049
Economic characteristics				
Wage-Head	-0.003 (2.132)*	-0.006	-0.003 (-3.45)*	-0.006
SALE	0.321 (2.542)*	0.271	0.421 (4.14)*	0.271
AGRI	0.542 (4.234)*	0.534	0.741 (6.31)*	0.534
ELEMNT	0.865 (6.512)*	0.756	0.898 (1.48)	0.756
Household Characteristics				
JOINT	-0.232 (2.456)*	-0.080	-0.183 (-3.57)*	-0.080
PUNJAB	1.512 (15.123)*	0.391	1.021 (18.16)*	0.391
SINDH	2.678 (18.234)*	0.534	1.608* (23.26)*	0.534
Khyberpaktunkha	1.982 (10.234)*	0.456	1.726 (14.16)*	0.456
Urban	-1.211 (12.333)*	-0.287	-1.954 (-11.56)*	-0.287
Observations	5802		5802	
Pseudo R ²	0.422		0.4067	
Log likelihood	-2253.678		-2353.794	

Note: Values in brackets are z values. Values which are significant at one, five and ten percent are shown by (), (**) and (***) respectively.*

The estimates reveal that children of sales, elementary and agriculture workers are more oriented to labor market than those of professionals (base category). This is because the household heads related to sales, agriculture and elementary work usually have low income and so send their children to labor market. This implies that low family income is an important reason for children working labor market. The children in the families where the heads belong to the sales work, agriculture and elementary work are 27%, 53% and 75% more likely to work than the professionals and assistant professionals.

Children belonging to joint families have 8% low probability to work than the children in nuclear families. Results by Ahmad (2012) provides similar impact. The estimates show that children work in all provincial labor markets in Pakistan. Absence of adequate finances to fulfill household financial needs and to engage children in acquiring education causes children to labor market work. This is due to the reason that socio-economic conditions in urban areas are far better than in rural areas. Since people are associated in family occupation and their children work in labor market.

Model 2: Social and Economic Factors and Under Age Work

Table 7 provides estimates of logit and probit models. Age of children has strong association with child work. This shows that children become mature both mentally and physically over time and therefore are likely to work in market with age. The results indicate that one year increase in the child's age is likely to increase child labor by 7 percentage points. Binti, Alia and Arabsheibanib (2016) found that children intend to work more as they grow older.

The results show that male children take part more in labor market than females children. A study by Ray (2001) examined that gender bias is more dominated in Pakistan where boys work for longer hours than girls.

Enrolment of children has significant inverse impact on child work. That is the children enrolled in school are not available to market work and rather they concentrate on their studies. The results indicate that enrolment of one more child in the school lowers child work by 19% and 23% according to probit and logit models respectively. Results found by Ravallion and Wodon (2000) confirm these results.

Based on the National Socio-economic Survey, 2005-2007, Binti, Alia and Arabsheibanib (2016) analyzed the supply side determining factors of child work in Indonesia. The key objective of the study was to inspect the role of household head in decision making process. The study found the existence of luxury axiom projected by Basu & Van (1998). The study found that children intend to work more as they grow older. Male children are more in the labor market than female children. Those living in rural areas are also more likely to work more. With reference to luxury axiom, household income is inversely related to working decision of the children the probability of children working in the market lowers with the presence of working adults in the family. Finally, it is found that the probability of child work varies by the province. Tenikue & Verheyden (2008) examined that older children are the only source of additional family income when income restraints become tight in poor families. Older children work more than younger children.

Similarly it is revealed from the estimates that educational years of children and household's heads have strong effect on child labor. That is the children are found to reduce the labor market work with the increase in educational level. This indicated that educated heads are able to earn reasonable wages and are less likely to propel their children to market work. The results indicate that one more educated head is likely to lessen the child work by about 12% and 13% according to probit and logit models respectively. Studies by Hafeez & Hussain (2019) found similar results. Likewise education was found to

negatively affect the labour force participation of Unmarried workers by Khan and Hafeez (2017). Similarly, Binti, Alia and Arabsheibanib (2016) examined that educated parents have low probability to allocate their children to

market work. However, a study by Hafeez & Ahmad (2002) finds that the females' education level is strong and positive determinant of labor market participation.

Table 7

Probit Estimates for Socio-Economic Factors and Under Age Work in Pakistan

Variables	Coefficients	Z	Marginal effects
Intercept	-1.551*	-3.345	
Children Characteristics			
AGE	0.831*	9.654	0.073
MALE	0.733*	6.987	0.164
Educational Characteristics			
ENR _{Child}	-0.480*	-20.234	-0.191
EDU _{Child}	-0.146*	-2.845	-0.062
EDU _{Head}	-0.187*	-1.94	-0.118
Economic Characteristics			
WAGE _{Head}	-0.005*	-2.155	-0.002
SALE	0.396*	4.023	0.213
AGRI	0.581*	4.934	0.398
ELEMNT	0.807*	5.93	0.523
Household Characteristics			
JOINT	-0.177*	-2.321	-0.075
PUNJAB	0.461*	7.711	0.075
SINDH	1.291*	14.123	0.441
Khyberpakhtunkha	1.351*	10.123	0.422
URBAN	-0.456*	-2.345	-0.223
N	5802		
Pseudo R ²	0.548		
Loglikelihood	-1667.334		

Note: Values in brackets are z values. Values which are significant at 1%, 5% and 10% percent are shown by (*), (**) and (***) respectively.

The results show that wages of heads have inverse relationship with child work. That is probability of child work decreases with rise in head's wage rate for the same reason as interpreted in the previous section. The results are significant at one percent level. The result indicate that increase in head's wage rate by one rupee is likely to lower the child labor by 0.02%. The similar results are found by Hussain, Suad & Khatak. (2017). Based on the National Socioeconomic Survey, 2005-2007, Binti, Alia and Arabsheibanib (2016) tested the existence of luxury axiom expected by Basu & Van (1998). The study showed that family

income is negatively associated with work decision of the children.

The children of sales, agriculture and elementary workers are more oriented to work in labor market than those of professional (base category). This is so because that these occupations are generally low of profile and people related to these earn fewer wage. Therefore, they are more oriented to impel children to market work. For example elementary workers have 52% and 55% higher probability to impel children to labor than professionals/assistant professionals according to probit and logit models

respectively. The study by Hafeez & Hussain (2019) support these results. The study found that the household heads who belong to the elementary, sales and agriculture work are intensive to allocate children to labor market work to meet households' economic and social needs.

The joint family system expresses strong negative relation with child labor. This may be because that larger families may reduce the probabilities of sending children to work due to presence of other earners in the family. Children belonging to joint families are about 8 percentages points less willing to market work than the children in nuclear families.

The estimates show that child labor prevails in all provinces of the country. Probability of child work is high in all provinces than Baluchistan (the base category). The probability of child work is high in Punjab and even higher in Sindh and KPK than in Baluchistan. Province of Punjab is found to be stronger in terms of presence of economic activities, therefore child labor is found to be higher in the province. Child labor may be higher in Sindh and KPK due low family income and poor economic activities. Likewise, Hafeez and Hussain (2019) found that child labor is found to be more intensive in Punjab, Sindh and KPK. Analyzing the child work in Indonesia, Binti, Alia and Arabsheibanib (2016) found that intensity of child labor varies by provinces in Indonesia. According to Hafeez (2015) women living in the larger provinces earn more than those in smaller provinces.

Children are less oriented to labor market work in urban areas than in rural areas. This is due to the reason that socio-economic activities are better in urban areas than in rural areas. In rural areas, people are usually engaged in family occupation. The study by Shujaat (2007) provide the same results. Likewise, Binti, Alia and Arabsheibanib (2016) showed that children work higher in rural and urban areas.

Conclusion

The study highlights social and social impact

of child work in Pakistan. The show reveals that signs and significance of variables in models are correct. All variables show a vital part in determining child work.

The results indicate that children age has strong positive association with child work in all models. This may be because that children become mature with time and they are so able to earn more overtime. The male children are more oriented to participate in labor market than female children. This may be due fact that male children are considered as physically stronger and energetic than female children. Similarly, enrollment of children and education level of children are negatively related with child labor. The children who have access to educational opportunities are less willing to participate in labor market.

Likewise educational status of household head has inverse relationship with the child labor. This reveals that the probability of children to join labor market becomes lowers with educated household heads. This may be due to the reason that educated heads earn higher wages than less educated heads and therefore the probability of child labor declines.

Wages of household heads have negative impact on child work. According to Ahmad & Hafeez (2007), the financial position of the family, in which a woman live, significantly influences her labor force participation decision. That is, the probability of child work become lowers due to the increase in wage rate. It is found that the children of sales, agriculture and elementary workers are more oriented towards child labor than those of professionals. This may be because that these may family occupations and heads belonging to these occupations have usually low earnings as compared to professional workers and hence they are more likely to work in labor market.

It is noted that children related to families' larger household are less likely to participate in market work. It is found that child labor prevails in all provinces of Pakistan. The incidence of child work is high in relatively

larger provinces like Punjab, Sindh and KPK. It is less prevalent in Baluchistan.

The following main policy implications may be suggested for the elimination of child labor.

- Government should work to enhance the enrollment rate among children.
- An easy access to educational opportunities for children may be increased.
- The government can focus to create good earning opportunities for the adult household members in order to reduce the child labor.

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