

## Determinants of Youth Activities in Pakistan

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### Abstract

*This paper analyzes the youth labour market activities in Pakistan. Based on micro data of Labour Force Survey (2006-07), the strength of analysis presented in the paper is twofold. First, it highlights some issues of youth in labour market, their attitude towards work and education in Pakistan and second, the econometric analysis investigates the supply side determinants of youth activities in Pakistan. Our descriptive analysis shows that a substantial percentage of youth is neither in labour force nor enrolled as student which shows the wastage of human resources in the society. Moreover, higher unemployment among educated youth, poor level of education and skills, predominance of informal economy are some of the major issues of youth labour market in Pakistan. Results of multinomial logit model show that being a female reduces the chances of full time work and full time students in Pakistan. In general, young people with educated parents are more likely to enroll in education, while those whose parents are working in agriculture or informal sector are more likely to be full time workers. Similarly, responsibilities within household as a head or having more number of siblings also increase the economic participation of youth.*

**Keywords:** Labor market; Youth activities; Education; Pakistan

**JEL classification:** J16, J21, J28

### 1. Introduction

Since 1950s, the world's population has gone through some major changes. Some countries are facing the problem of ageing population while some are having a larger share of youth<sup>2</sup> population. Pakistan is also one of the countries which will have larger share of youth population in future. According to United Nations Population Projections; by the year 2050, there will be 50 million young people in Pakistan<sup>3</sup>. These young people can be

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<sup>2</sup> In Pakistan, Youth constitutes a group of 15-24 years of age people.

<sup>3</sup> World Population Prospects: The 2006 Revision.

considering as an asset to produce demographic dividend<sup>4</sup> for the society if proper education and economic opportunities are provided to them. However, unfortunately in Pakistan, these young people are facing number of challenges and difficulties in their way to education and work (Nayab, 2008; Ahmad & Azim, 2010). Early start of career, higher rate of unemployment, lack of educational and vocational opportunities are some of the issues of youth in Pakistan. On one hand, many young people start their career early which can adversely affect their earnings later in life<sup>5</sup> while on other hand, a substantial percentage of youth especially females are not engaged in any economic activity<sup>6</sup>. Usual status<sup>7</sup> unemployment rate (22%) for youth in Pakistan is almost three times higher than their official unemployment rate (7.5%). Moreover, a substantial percentage (30.5 %) of youth in Pakistan is neither in school nor in labour force. Only 27 percent of young people (22.1 percent female and 31.7 percent of male youth) are currently enrolled as a student in the age when they are supposed to complete their education. About 14.2 percent of employed youth work for less than 35 hours a week. Majority of them (about 94.4 percent) are not available for additional work and those who are available for additional work do not take serious measures to find work. Only 2.6 percent of them are actively seeking for additional or alternative work. Some of these figures are summarized in table 1.

All these facts and figures show that a substantial percentage of our population will consist of young people in future and majority of them are either sitting idle or facing difficulties in labour market. The opportunity cost of sitting idle of these people can be very high and there is a need to analyze what factors determine the outcomes of youth activities in Pakistan. This paper is an attempt to analyze the supply side determinants of activities of youth in Pakistan. For this purpose, we divide the activities of youth in four categories<sup>8</sup>, i.e., those who are full time student, full time worker, combine work with school and neither working nor enrolled as student. These

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<sup>4</sup> Different researchers have already claimed that countries with larger share of youth and working age population may experience a boost in economic growth which is termed as 'demographic dividend'. See for example, studies by Bloom et al., 2001; Lee et al., 2006.

<sup>5</sup> Emerson and Souza, 2006; Faizunnisa, 2005.

<sup>6</sup> Durrant, 2000.

<sup>7</sup> Official unemployment rate is based on one week reference period while usual status approach uses last twelve months status as reference period. For details about usual status approach, see Ahmad (2010).

<sup>8</sup> We follow the methodology used by Burki and Tazeen (1999) to divide youth activities in four mutually exclusive categories.

outcomes are then regressed on their personal, household and regional characteristics to find out the factors affecting each outcome. Complete descriptions of dependent and independent variables are given in table 4 while remaining paper is organized as follows.

**Table 1: Activities of youth (15-24 years)**

Full time student	21.8%
Full time work	36.1%
Combine work with school	1.2%
Out of school and out of labor force	30.5%
Labour force participation rate (LFPR)	47.6%
Unemployment rate	
a) Official	7.5%
b) Usual status	21.7%
Vulnerable employment <sup>9</sup>	52.1%
(as percentage of total employment)	

Source: Calculated from LFS (2006-07)

Section two briefly presents some issues faced by youth in labour market, section three gives a brief overview of literature survey and section four discusses the data source and methodology for empirical analysis. Results of empirical analysis are presented in section five while conclusions and recommendations are discussed in section six.

## **2. Issues of Youth Labour Market in Pakistan**

Labour market in Pakistan is confronted with number of challenges. Some of critical issues related to the youth labour are discussed below.

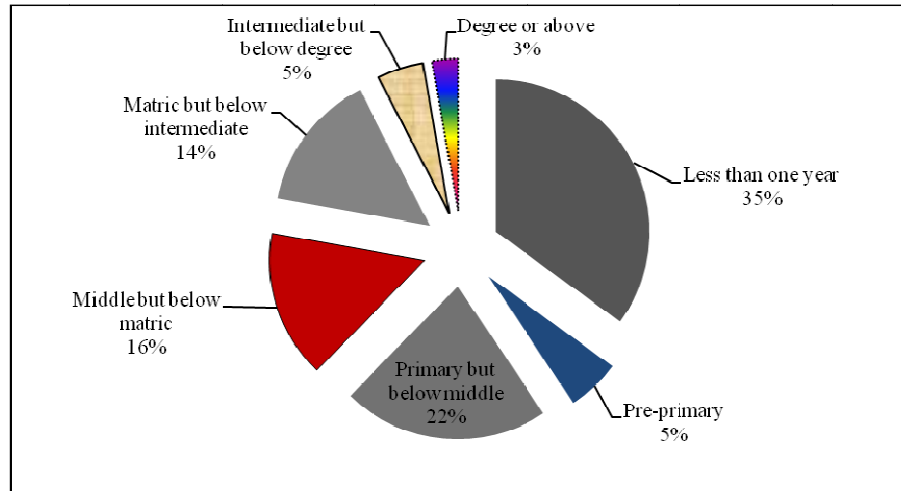
### **2.1. Poor Level of Education and Skills**

Education plays an important role in the development of a country. It raises the productivity and efficiency of individuals in the labour market. Unfortunately, Pakistan is lagging behind in the field of education and skills. About one-third of the youth population, a total of 10.4 million (3.7 million males and 6.7 million females) are illiterate (GOP, 2008). Statistics of educational attainment of youth also do not present a good picture of situation. In the year 2006, more than half of the youth labour force (62.2 per cent) had

<sup>9</sup> Unpaid family helpers and own account workers are considered as vulnerable in labour market, for detail see Pakistan Employment Trends for Youth ,2008.

either less than one year or just primary education (Figure 1). It is not hard to imagine the skills and productivity of the labour force with such a low level of education.

**Figure 1: Educational Attainment of the Youth Labour Force (%)**



Source: Calculated from LFS, 2006-07

Technical and Vocational Institutions also play an important role in the process of employment generation especially for young people. Returns on investment in education and training are very high for youth because they are more mobile and flexible. A study by Nasir and Nazli (2005) has shown that a one year increase in technical education resulted in 2.4 percent increase in income of individuals in Pakistan. However, the state of Technical and Vocational Educational Institutions is not very satisfactory in the country. According to Economic Survey of Pakistan (2008-09), there are just 1522 Technical and Vocational Institutions in Pakistan (Table 2). Only 1.6 percent students after matriculation are enrolled in Technical and Vocational institutions as compared to 8 percent in developing and 18 percent in the developed countries<sup>10</sup>. Moreover, the quality and structure of these institutions are also not very good. According to Asian Development Bank Survey in year 2005, the performance of 28 percent of Vocational and Technical Institutions

<sup>10</sup> Cited in UNESCO, 2006

in Pakistan was poor, 60 percent was fair and only 12 percent of institutions' performance was ranked as good<sup>11</sup>.

**Table 2: Trends in Technical and Vocational Education in Pakistan**

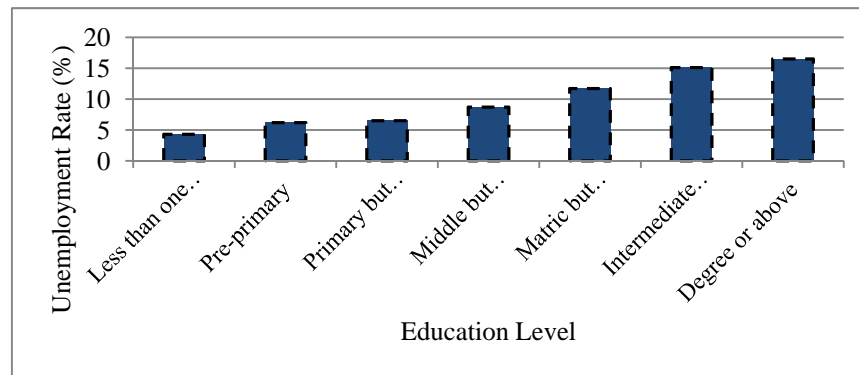
Indicators	1995-96	2006-07
Number of Institutions	577	1522
Total Enrollment	86000	314188
Percentage enrollment (Technical and Vocational education)	0.56 %	1.66 %

Source: GOP, 2008a. Economic Survey of Pakistan, 2007-08 and HDR, 2007

## 2.2. Higher Unemployment<sup>12</sup> among Educated Youth in Pakistan

There is an incidence of higher unemployment among educated people in Pakistan which shows the mismatch between type of education and opportunities available in labour market. It is clear from figure 2 that unemployment rate among those with higher level of education is much greater than those with lower level of education. It does not mean that education is not good for labour market success in Pakistan. The main reason is that in general, tertiary education in Pakistan is not providing required skill for jobs in the labour market. Students generally do not have any practical

**Figure 3: Unemployment on the basis of Education Level in Pakistan  
(Youth, 2006-07)**



Source: Based on GOP, 2008. Pakistan Employment Trends

<sup>11</sup> Cited in HDR, 2007

<sup>12</sup> Figures presented in this section are based on weekly status approach and are official figures.

knowledge and skills during their education in schools. After education, they usually demand comparatively higher wages as compared to people with low level of education which results in the higher level of unemployment for them.

### **2.3. Predominance of Informal Economy**

In Pakistan, informal economy is formulated in terms of household enterprises owned and operated by own-account workers (LFS 2006-07). Share of informal economy in total GDP is 37 percent in Pakistan which is much higher than the average share of informal sector in South Asian economies (26 percent of GDP). It is considered as the primary source of job generator after agriculture sector and provides more than half of the total employment in urban areas of Pakistan<sup>13</sup>. The main reason of this may be its biasness towards unskilled labour. Youth in early stage of their careers, get involved in informal economic activities which may result in low wage and productivity in future.

### **2.4. Gender Gap in the Labour Market Outcomes**

Last column of Table 3 highlights the gender gap in different labour market outcomes for youth in Pakistan. All indicators show the biasness against female youth in the labour market. Their LFPR is almost 51 percentage points lower than that of male LFPR. Similarly, literacy rate of female youth is 19.7 percentage points less than that of male youth. Most of employed females are working as unpaid family helpers, which show the lack of proper work opportunities for them as compared to their male counterparts.

## **3. Literature Review**

There has been a debate among researchers over the effects of early start of career. Their focus is on the impact of early start of career on educational achievements, human capital accumulation, productivity and finally on earnings later in life. In USA, a study by Michael and Nancy (1984) has shown that early work experience of youth should not be ignored as it does impact on labour market experience later in life.

For example, researchers like Elahi et al., (2005); Emerson and Andre (2006) found that boys who enter labour market early earn less and more likely to be in lowest income quintile later in life. Similarly, in Pakistan,

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<sup>13</sup> ILO, 2005.

Faizunnisa (2005) found that, early start of career is often a phenomenon that exists in poor families which adversely affect their life time earnings.

**Table 3: Gender Gap in Labour Market Indicators (2006-07)**

Indicators	Male	Female	Gender Gap <sup>14</sup>
Labour Force Participation Rate	69.2	18.4	50.8
Unemployment Rate	7.1	8.9	-1.8
Employment-to-population Ratio (EPR) <sup>15</sup>	64.0	17.0	47.0
Literacy Rate	77.2	57.5	19.7
Share of Employment in Formal economy as percentage of total employment	14.0	9.0	5.0
Share of Employment in informal economy as percentage of total employment	53.0	32.0	21.0
Share of unpaid family helpers in total employment	35.0	56.5	-21.5

Source: Calculated from LFS, 2006-07

Some researcher analyzed the factors that can affect the decision of schooling and work of young people in market. For example, Rosati and Rossi (2003) analyzed the decision of household regarding the school attendance or labour supply (hours worked) by young people in Pakistan. Using Household Survey data, they applied Tobit model for the dependent variable of hours worked per week and Probit model on the decision to school enrolment of children. Independent variables include age, age squared (as a proxy variable for experience), household income, household size, number of children in household, and dummy variables for being female, and residence of rural areas. Their results showed that household size and number of children present in the household reduce the probability of school enrollment. Similarly, children living in rural areas are also less likely to be enrolled. The model of labour supply (hours worked per week) by children showed that increase in the income of household reduces the number of hours worked by children. Female children with larger household size worked fewer hours in market, this may be due to the fact that they spend more time in household work which increases in case of large household size.

<sup>14</sup> Gender Gap is calculated by deducting the respective indicator of female youth from that of male youth. For example, gender gap in literacy rate = male literacy rate – female literacy rate.

<sup>15</sup> EPR is taken from GOP (2008) “Pakistan Employment Trends for youth”.

Female labour force participation in some developing countries like Pakistan is very low. Majority of the women are engaged in household works which are mostly unpaid and hidden. A study by Durrant (2000) showed that 45 percent of females aged 10–19 are apparently not engaged in any economic activities in Pakistan. Similarly, Sathar (2005) also investigated women work at home and found that at every age from 15-24, women work more hours than men but their work is largely unpaid and hidden.

Lloyd and Monica (2004) used Adolescent and Youth Survey of Pakistan (2001-02) and developed a model to analyze the determinants of youth activities in Pakistan. They divided the youth activities into three categories, i.e. household work, schooling, and paid work. Their study concluded that the presence of children, elderly and young people in household is associated with increase in the time of non-economic household work by young females. Having literate parents decrease the time spend on household work by young females especially in urban areas. Their study also highlights that the availability of school, technical institution, and opportunity for job (presence of factory in the area) are strongly associated with time use pattern of young males and females in Pakistan. Availability of schools within one kilometer of area reduces the chances of paid work among young females, while presence of factory in the area increases the time spent by young males and females on paid work.

Fafchamps and Wahba (2006) used labour force survey (1998-1999) in Nepal and found that Children residing near or in urban areas attend school more and work less. Moreover, higher education of parents reduces the probability of child work. Kingdon and Soderbon (2008) by using Pakistan Integrated Household Surveys (PIHS) (1998-99, 2001-02) found that along with increase in education, the likelihood of involving in agricultural production reduces for young men rather they prefer to quite labour force.

#### **4. Data Source and Methodology of the Study**

This article is based upon micro data from Labour Force Survey of Pakistan (2006-07), the survey provides information about 32,000 households containing information of 224,000 individuals. From this data set, we selected a sample of 44,902 individuals whose age was between 14 to 24 years, after dropping the 4682 individuals with missing values we left with a sample of 40,220 to use for our empirical analysis. Table 4 describes the description of dependent and independent variables of the study which is self explanatory.



**Table 4: Description of Variables**

<b>Dependent Variable</b>	<b>Description</b>
Youth Activity	= 1 if full-time student = 2 if combine work with school = 3 if full-time worker = 4 if neither enrolled nor economically active (reference category)
<b>Independent Variables</b>	
<b>Covariates</b>	<b>Sub-groups/Description</b>
<b>Youth characteristics</b>	
Age	Age in completed years
Age squared	Square of age (to capture the experience)
Gender	= 1 if female = 0 if male (reference category)
Married	= 1 if married = 0 if not married at present (reference category)
Training	= 1 if have some technical training and skills = 0 if do not have technical training (reference category)
Migration	=1 if migrated from one district to another = 0 if did not migrate from one district to another (reference category)
Head	= 1 if head of the household = 0 if not head of the household (reference category)
Education Level <sup>16</sup>	= 0 if education level is below primary <sup>17</sup> (reference category) = 1 if education level is primary but below middle and 0 otherwise =1 if education is middle but below matric and 0 otherwise =1 if education level is matric but below inter and 0 otherwise =1 if education level is inter but below degree and 0 otherwise =1 if education level is degree or above and 0

<sup>16</sup> Different softwares require different methods to construct variables, we use STATA 9 which requires to generate variables as described in table 4

<sup>17</sup> This category includes illiterate as well as those whose education level is below primary.

	otherwise
<b>Regional Factors</b>	
Location	= 1 if location is rural = 0 if location is urban (reference category)
Province	= 0 if province is Punjab (reference category) = 1 if province is Sind and 0 otherwise = 1 if province is KPK and 0 otherwise = 1 if province is Baluchistan and 0 otherwise
<b>Household Characteristics</b>	
Female head	= 1 if head is female = 0 if head is male (reference category)
Household size	Numbers of persons in household
Siblings	Number of children under the age of 15 years in household
Head education	= 0 if education level is below primary (reference category) = 1 if education level is primary but below middle and 0 otherwise = 1 if education is middle but below matric and 0 otherwise = 1 if education level is matric but below inter and 0 otherwise = 1 if education level is inter but below degree and 0 otherwise = 1 if education level is degree or above and 0 otherwise
Head activity	= 0 if head is unemployed or out of labour force (reference category) = 1 if head is working in formal sector and 0 otherwise = 1 if head is working in informal sector and 0 otherwise = 1 if head is working in agricultural sector and 0 otherwise

#### 4.1. The Model

As our dependent variable has more than two categories, we estimate multinomial logit model with maximum likelihood estimation procedure on a set of explanatory variables to model the determinants of youth activities in Pakistan

Probabilities in the multinomial model<sup>18</sup> are given by

$$prob(Y_i = j | x_i) = \frac{e^{\beta_j x_i}}{1 + \sum_{k=1}^j e^{\beta_k x_i}}, \text{ for } j = 0, 2, \dots, j, \beta_0 = 0 \dots\dots\dots(1)$$

While J log-odds ratios are define as:

$$\ln \left[ \frac{P_{ij}}{P_{ik}} \right] = \hat{x}_i (\beta_j - \beta_k) = \hat{x}_i \beta_j \quad \text{if } k = 0 \dots\dots\dots(2)$$

We assume that the odds ratio,  $\frac{P_j}{P_k}$  does not depend upon other choices.

As described by Green (2008), the log-likelihood can derived by defining for each individual,  $d_{ij} = 1$  if alternative  $j$  is chosen by individual  $i$ , and 0 if not, for the  $j-1$  possible outcomes, then for each  $i$ , one and only one of the  $d_{ij}$ 's is 1. The log-likelihood is given by:

$$\ln L = \sum_{i=1}^n \sum_{j=0}^j d_{ij} \ln Prob(Y_i = j) \dots\dots\dots(3)$$

To interpret the effect of independent variables on the probabilities of each choice we also calculate marginal effects of each outcome. By differentiating equation (1) we find the marginal effects of the characteristics on the probabilities are

$$\delta_j = \frac{\partial P_j}{\partial x_i} = P_j [\beta_j - \sum_{k=0}^j P_k \beta_k] = P_j [\beta_j - \bar{\beta}] \dots\dots\dots(4)$$

Likelihood Ratio (LR) Chi-Square test is used to test the null hypothesis that all the slope coefficients in the model are zero.

## 4.2. Issues and Hypotheses

### 4.2.1. Age of Youth

Economic theory states that along with increase in age, people start taking part in economic activities and enter in labor market. In the beginning of career, a young person may experience unemployment due to lack of experience and skills but as a young person gets experience, he or she becomes less likely to be economically inactive. In our society, there is a great emphasis on early start of career especially, in rural areas where children start working with their families in fields, so chances to enroll as a student may also decrease along with increase in age.

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<sup>18</sup> Multinomial Logit model described here is drawn from Green (2008).

#### **4.2.2. Gender**

In a male dominant society, females are less likely to participate in economic activities or enroll as a student. They are expected to engage in household work.

#### **4.2.3. Marital Status**

It is assume that marriage brings some responsibility and a married person is more likely to be engage in economic activities. However, this relationship cannot be expected for females, rather it is assume that married females are more likely to engage in household work and taking care of siblings instead of enroll in educational institution or doing some job.

#### **4.2.4. Education Level**

Education level of a young person can also affect his/her activities in two ways depending upon how we argue it. One can assume that investment in human capital increases the chances of getting employment in the labor market as educated people are more skillful and can better search for a job as compare to those with low level of education. On the contrary, one can also argue that young people with higher level of education usually have higher expectations about pay and jobs. They become more status conscious and prefer to wait for the time to get better and suitable employment instead of being involved in low paid or informal economic activities.

#### **4.2.5. Head of Household**

It is assume that being the head of household increases the responsibility of youth, they might start working earlier in their life, it is also expected that there will be more chances of employment at early stage of life if the young person is also having the responsibility of being the head of household.

#### **4.2.6. Location**

It is assume that youth living in rural areas are more likely to engage in economic activities instead of getting education as compare to their urban counterparts.

#### **4.2.7. Province**

Due to diverse culture, cast system, and traditions, young people in each province are expected to have different opportunities and attitude

towards work and education. It is assumed that more and better employment and educational opportunities are available in Punjab and Sindh as compared to Baluchistan and KPK. So, youth living in Baluchistan and KPK are more likely to be inactive as compared to youth living in Punjab and Sindh.

#### **4.2.8. Household Size and Number of Siblings**

Household size may also affect the attitude of youth towards economic activities. Generally, large families increase the burden on young persons to engage in economic activities. This may have a positive impact on labor force participation of youth in the household. One can also expect a negative impact of household size and number of siblings present in house on female labor force participation. As more children in household will require young females to stay at home and take care of young siblings instead of going to work.

#### **4.2.9. Status of Household Head**

In our society, head is usually responsible to fulfill the financial requirements of household. Therefore, status of household head may greatly affect the activities of young persons in labor market. If head is unemployed then other members of household especially young people will have to take the responsibility to finance the household expenditures. Moreover, it is also expected that if head is working in formal sector he would be better able to finance his household and young persons may get their education instead of participating in economic activities.

#### **4.2.10. Gender of Household Head**

Head are generally male in our society; it will be interesting to find out whether youth living in female-headed household are more or less likely to engage in economic activities. Youth living in female-headed household may feel responsibility to manage their household and may start their career early.

#### **4.2.11. Education Level of Household Head**

Increase in the level of education of the household head is expected to reduce the chances of youth to start their career early. A highly educated person is expected to earn enough money that is sufficient to support their families. Therefore, it is expected that higher the level of education of the household's head more will be the chances that youth will engage in educational activities instead of economic activities.

## 5. Determinants of Youth Activities in Pakistan

Table 5 presents the results of multinomial logit estimates for youth activities in Pakistan. For this purpose, we divide activities of youth in four mutually exclusive categories, i.e. full-time students, those who combine work with school, full-time workers and those who neither work nor go to school. Using fourth category (neither work nor school) as our reference category we estimate multinomial logistic coefficients with maximum likelihood estimation. Results suggest that age has an important impact on the decision about schooling and employment for youth in Pakistan. For example, in case of full-time student, the estimated parameters of age and age squared show that the probability of being a full-time student decreases at an increasing rate and reached at its minimum point at the age of 26.59 years. Probability derivative of age also indicates that a one year increase in age decreases the probability of being a full-time student by 6.6 percentage points. Similarly, the probability of combining work with school also decreases along with increase in age while the probability of being a full-time worker increases by 11 percentage points. The main reason of this may be the increase in the cost of education and opportunity cost of staying at school which rises with age.

Similar kind of results is reported by different researchers in Pakistan. For example, studies by Naqvi and Shehnaz (2000) and Arif *et al.*, (2002) found that participation in economic activities increase with age for both male and female youth in Pakistan. However, In Kuwait, Aly and Quisi (1996) found that age is inversely related to women economic participation. The results on the probabilities of female youth show that females are 0.2 percent less likely to be full-time student, 0.9 percent less likely to combine work with school and 71 percent less likely to be full-time workers than their male counterparts. These results depict a traditional bias of society towards females which are mainly considered to do household work instead of going to work or school. Moreover, the probabilities of being a full-time student or full-time worker also decrease if the young person is married. This may be due to high rate of inactivity among female youth which are not expected to work or get education after marriage. These results also confirm the results of earlier studies of Durrant (2000) and Sathar (2005) which show that mostly females in Pakistan are not economically active and their work is largely unpaid and hidden.

As expected, migration, training and being the head of household have positive impact on the probabilities of being a full-time worker. For example,

probability of full-time work increases by 17 percentage points if the respondent is the head of household, by 9 percentage points if have some technical training and by 37 percentage points if migrates to earn his or her living. Generally, in society like Pakistan, head of the household is considered to take the responsibility of financial matters of family. Therefore, one can expect an increase in economic participation and chances of full-time work by young people as a head of household. Similarly, a person who gets some training or migrates to earn living may also be expected to fully participate in economic activities in order to maximize benefits of migration or technical training.

To find the impact of education on youth activities we divide it in different categories and take 'below primary' as our reference category. Coefficients of this variable show some interesting results, along with increase in the level of education, the probabilities of being full-time student or combine work with school increase while that of full-time work decreases. This may be so as youth with low level of education start their career early (due to limited availability of options) and with higher level of education prefer to get higher education instead of getting involved in low paid economic activities. While on the other hand, all those who have education level of primary or above are more likely to enroll for further education. The highest enrolment rate is among those who have intermediate or degree level education.

Household size and number of siblings present in the household do not affect the first two outcomes (full-time student and combine work with school). One can expect the household size to reduce the school enrolment rate especially for female as concluded by Rosati and Rossi (2003). However, in our results, only number of siblings presents in the household increases the probability of full-time work by 2 percentage points.

Activity of head by sector of employment does not have much impact on the decision of schooling or combining work with school but it does affect the probability of being a full-time worker significantly. Our results suggest that the probability of being full-time work increases by 17 percentage points if the head is working in agricultural sector and by 6 percentage point if the head is working in informal sector. It may be due to the fact that informal sector in Pakistan is considered as the major source of employment in the economy. It consists of households enterprises owned and operated by own-account workers or an enterprise owned and operated by an employer with

less than ten persons involved in the business. Therefore, our results are not surprising in the sense that youth living with the head who is either working in informal or agriculture sector may be more likely to get involve in work with their families in fields or in household enterprises.

In countries like Pakistan, one can expect that young people in female-headed households may start their career early. However, this variable does not seem to have any impact on youth activities. It may be due to the limited number of data points of this variable as only 0.1 percent of the households are headed by female in our data set.

As expected, the education level of the head of household has strong impact on youth activities in Pakistan. Our results confirm the hypothesis that along with increase in the level of education of head of the household, the probability of being full-time student increases and that of full-time work decreases. A young person with the head's qualification of degree or above is about 7 percentage points more likely to be full-time student and 22 percentage points less likely to work as compared to a young man who lives in house where head is illiterate or below primary. As far as regional variables are concerned, our results show that young people living in rural areas are 2.6 percentage points more likely to work full-time; however, this variable does not have much impact on other two outcomes (being full-time student or combine work with school). Earlier study by Rosati and Rossi (2003) has also shown that youth living in rural areas are less likely to be enrolled and more likely to work. Provincial difference does not have much impact on the probabilities of full-time student or combine work with school. However, Punjab is the province where young people are more likely to work full-time as compared to the youth in other three provinces.

## **6. Conclusions and Recommendations**

Based on micro data, this paper in descriptive terms shows that a substantial number of our youth is neither in school nor working, moreover, their attitude towards work and level of education also shows the areas need to address. Empirically we investigated the supply side determinants of youth activities in Pakistan. Our results show that being a female, reduces the chances of full time work and full time students in our society. Results also show that being a head of household increases the chances of full time work substantially. The results of this paper show an overall pattern of youth activities and the factors affecting them. In general, the young people with educated parents are more likely to enroll in education, while on the other



hand those whose parents are working in agriculture or informal sector are more likely to be full time worker. Similarly, responsibilities within household as a head or having more number of siblings also increase the economic participation of youth. In general, we can conclude that region of residence, personal and parent's level of education, their employment status, and status within household determine the outcomes of youth activities.

Being a labour abundant country, it would be fair to say that well-being of Pakistan, in future, will heavily depend upon the willingness of its people to work. Unfortunately, the study highlights that a substantial percentage of young people are inactive, neither have they worked nor they study. One can expect high rate of inactivity among females due to household responsibilities but higher inactivity rate among male youth shows the wastage of human resources in the society. Current labour force survey provides very little information about the activities of youth who are neither in school nor in labour force. It is recommended that FBS (Federal Bureau of Statistics) should set a questionnaire that evaluates what young people do in their spare time. How much time they spend in family work, in schooling, loafing and so forth? For this purpose, a time-use survey of youth can also be initiated. The survey must provide information in much more comprehensive way about youth time usage and activities instead of asking just few basic questions. It would also be helpful to differentiate between those who are discouraged workers from those who do not want to work or show any commitment in finding work.

To reduce gender difference in labour market, a motivational campaign is required to educate the society to change their attitude about women work. Providing equal opportunities to young women in education and labour market should be the focus of this campaign. Income generating projects like handicrafts and other home based activities need to be identified for young females in the informal sector. For this purpose, training and educational programs should be launched. Government should also provide a minimum social protection package to vulnerable youth especially for young females in rural areas.

The study also highlights the fact that more than half of the youth labour force (62.2 per cent) has either less than one year or just primary education. Moreover, those who are educated face higher unemployment as compared to those with low level or no education. It shows the need to address the issues of relevance and practical application of education in Pakistan. In order to identify the market requirements and needs, link between

educational institutions and industry should be developed. We also observe that parent's education significantly affects the activities of youth. Having educated parents improves the chances of youth to get higher education. Any motivational campaign to educate the parents regarding the education and work of their children could improve their economic participation and enrollment in educational institutions.

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## Appendix

**Table A-5: Multinomial Logit Estimates of Youth Activities in Pakistan**

Covariates	Subgroups	Full time Student			Combine work			Work only		
		Coefficients	Odds Ratios	Marginal Effects	Coefficients	Odds Ratios	Marginal Effects	Coefficients	Odds Ratios	Marginal Effects
<b>Personal Characteristics</b>										
Age		-2.638*	0.07	-0.066	-1.469*	0.23	-0.015	0.271*	1.31	0.111
Age square		0.050*	1.05	0.001	0.028*	1.03	0.000	-0.004**	1.00	-0.002
Gender	Male (ref)	---	---	---	---	---	---	---	---	---
	Female	-2.214*	0.11	-0.002	-3.473*	0.03	-0.009	-3.830*	0.02	-0.714
Married	No (ref)	---	---	---	---	---	---	---	---	---
	Yes	-2.618*	0.07	-0.034	-1.646*	0.19	-0.009	-0.575*	0.56	-0.114
Migrated	No (ref)	---	---	---	---	---	---	---	---	---
	Yes	0.942	2.56	-0.018	2.928*	18.69	0.008	2.817*	16.72	0.374
Training	No (ref)	---	---	---	---	---	---	---	---	---
	Yes	-0.281	0.75	-0.010	0.505	1.66	0.003	0.404*	1.50	0.095
Head of the household	No (ref)	---	---	---	---	---	---	---	---	---
	Yes	-0.007	0.99	-0.010	0.566	1.76	0.001	0.778*	2.18	0.171
Educational level	Below Primary(ref)	---	---	---	---	---	---	---	---	---
	Primary	4.692*	109.07	0.530	0.917*	2.50	0.001	-0.019	0.98	-0.314
	Middle	7.058*	1161.64	0.870	2.875*	17.72	0.006	-0.074	0.93	-0.519
	Matirc	7.493*	1795.08	0.916	3.144*	23.19	0.004	-0.187*	0.83	-0.549
	Inter	9.413*	12245.21	0.976	4.850*	127.77	-0.001	-0.099	0.91	-0.573
	Degree or above	9.315*	11100.68	0.972	4.769*	117.75	-0.003	0.226*	1.25	-0.565
<b>Household Characteristics</b>										
Household Size		-0.003	1.00	0.001	-0.034	0.97	0.000	-0.048*	0.95	-0.012

Determinants of Youth Activities in Pakistan

Covariates	Subgroups	Full time Student			Combine Work			Work only		
		Coefficients	Odds Ratios	Marginal Effects	Coefficients	Odds Ratios	Marginal Effects	Coefficients	Odds Ratios	Marginal Effects
No. of siblings		-0.001	1.00	-0.001	0.064**	1.07	0.000	0.086*	1.09	0.021
Head activity	Unemployed (ref)	---	---	---	---	---	---	---	---	---
	Formal	0.113	1.12	0.001	0.385*	1.47	0.003	0.142*	1.15	0.031
	Agricultural	0.186*	0.91	-0.007	1.285*	1.79	0.009	0.262*	1.30	0.174
	Informal	-0.089	1.20	-0.006	0.582*	3.62	0.004	0.784*	2.19	0.062
Head education	Below Primary (ref)	---	---	---	---	---	---	---	---	---
	Primary	0.014*	1.01	0.004	0.006	1.01	0.002	-0.289*	0.75	-0.072
	Middle	0.296*	1.34	0.013	-0.068	0.93	0.001	-0.307*	0.74	-0.080
	Matric	0.336*	1.40	0.017	-0.083	0.92	0.001	-0.448*	0.64	-0.116
	Inter	0.823*	2.28	0.045	-0.234	0.79	0.000	-0.615*	0.54	-0.168
	Degree or above	1.105*	3.02	0.069	-0.250	0.78	0.001	-0.782*	0.46	-0.215
<b>Regional Characteristics</b>										
Region	Urban (ref)	---	---	---	---	---	---	---	---	---
	Rural	-0.176*	0.84	-0.006	0.262*	1.30	0.002	0.104*	1.11	0.027
Province	Punjab (ref)	---	---	---	---	---	---	---	---	---
	Sind	-0.434*	0.65	-0.005	-0.282*	0.75	-0.001	-0.385*	0.68	-0.088
	NWFP	-0.085	0.92	0.012	-0.026	0.97	0.005	-1.053*	0.35	-0.256
	Baluchistan	-0.654*	0.52	-0.010	-0.060	0.94	0.001	-0.184*	0.83	-0.038
	Constant	25.904*			13.326*			-1.034		
Log Likelihood				-23012.35						
LR Chi <sup>2</sup>				45198.5						
Pseudo R <sup>2</sup>				0.4955						
Observations				40220						

Note: \* indicates significant at five percent level and \*\* indicates significant at ten percent level.  
Omitted category is neither work nor school.