

THE GENDER PAY GAP: A CASE STUDY OF LOWER KURRAM AGENCY-KHYBER PAKHTUNKHWA

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ABSTRACT

This paper shows the issues concerning to the gender wage gap in district kurram, Parachinar. This study examined the features that affect gender wage pay gap discrimination in the non-governmental private sector. In this in-depth correlation, structured primary data has been collected from various sample respondents having the perception of both males and females of entirely classes existing upon higher, lower and middle category of workforces. The data of the existing study have been poised from diversify channel namely the financial intermediaries (banks), academia, non-governmental organization and health sector in district kurram, Parachinar. For the estimation of wages model, we empirically employed Mincer Earning Function (MEF). The study carries out an embracing descriptive result of the given data. Keeping in view, the empirical estimation of the dependent variable has been analyzed through Ordinary Least Square (OLS) method. The finalized outcomes of the OLS model indicates that the dependent variable highlights the monthly wages of a selected sample respondents while explanatory variables comprise on gender, education, experience, occupation. Almost all variables are found to be significant with an excepted sign.

Keywords: Earning function, Gender disparity, Discrimination, Labor market

INTRODUCTION

The participation and contribution of female involvement have been dramatically rising worldwide from day to day in both private and public sectors. The prior reason for growing sharing is the interdependence of international economies, because majority of the economy with a stumpy per capita GDP, while the second most important reason is the expansion of diverse organizations like Economic Cooperation and Development (ECD), different private sectors, World Trade Organizations (WTO), and NGO's etc. The role of these sectors is very significant, which helps public to handle several managerial challenges that emphasis to decline gender wage variances, but still, the pay differences between women and men are the core concerns in various countries (Yasin and Chaudhry, 2010). In case of Pakistan, during in the past few years the female participation and involvement have improved in the market atmosphere and diverse activities found to be exist like the achievement of quality and higher education, through their consistent engagement and analysis in the market, the numerous positions of women empowerment have enhanced in Pakistan (Hossain, 2005). A women situation of Pakistan has enhanced in a different prospect such as participation in the employment market, the attainment of quality and higher education, and also take part in policy making in the diverse segments based on country-based data. During the past few decades' male-female participation in the work force has improved and enhanced education quality but, still the sexual wage differential has not been minimized and female supposed to be excluded to decide on business sector and political while, males are predominantly involved in every verdict making regarding all sectors in the economy (Tisdell, 2005). In case of developing nations such as Pakistan, gender pay differences are most common in various segments, large number of countries have female dense population comparatively than male. Numerous research studies found out the long-run and short-run effects of gender pay differential on economic growth. In this scenario, Pakistan is recorded as the 6th most populated country globally,

having the population rate is 177.10 million out of these 67.7 percent are female and 65.5 percent are male (Pakistan Economic Survey). Overall perceptions of the society encompasses, that females are less contributed and having considered subordinate in term of labor force, so the facts behind this figure is 79.4 percentage of females is fewer paid than males which indicates a 33 percent gender pay discrepancy in Pakistan (Arshad, 2008). Globally, gender separation due to profession is occur where gender female and males are assigned to explicit occupations. Olsen and Walby (2004) established that throughout in males dominated world, the males are getting more than the females, in contrast females are allocated such as nurses, family upkeep, tutor, etc. In various occupation with same status of employee have high variation in there percentage of wages, where male have higher wage inflow than female in term of their services, because female is always engaged in minimal-payment jobs such as a social worker, part-time job, teacher, etc. comparatively male worked with high-paying occupations such as scientist, judge, professor, engineer, lawyer, etc. (Blau, 2016). Human capital variable do not describe the visible wage gap regardless the rise of sharing of the female work force globally. A remunerations with different status are received by male and female in spite of their level of human capital is the position. It is proposed by Becker's (1993) that females get lower salaries as compared to men because their investment is smaller in job training and receiving of education as they are multimode in labor market by their stereotypical responsibilities in the household. Human capital investment (HCI) do not interpreted the major difference between genders, in order to receive low pays regardless having the same level of human capital, however, there exist other omitted elements or reasons of discrimination in the labor market.

Theories of wage discrimination

Becker (1957) established the framework for modern economic analysis of discrimination. In his book, the Economics of Discrimination, he recognized the standpoint against black worker discrimination. The same Hypothesis was used to shed light on female discrimination in term labor market. The gap between the two efficient individual groups do not arise discrimination, but non-pecuniary considerations like gender and race do. Socialist theory and feminist theory can also elaborate wage discrimination; however, they are out of the scope to the existing study here.

Labor market discrimination was well-defined by Smith (2009) as if an individual workforces who have same productive features are kept up differently because of the demographic groups to which they belong. Blau and her colleagues (2006), based on Becker's Hypothesis argued that discrimination exist in labor market when the same status productive and experienced individuals treat differently just due to their gender difference. Although Becker's (1964) goes to clarify the reasons of wages gap in term of gender pay gap studies, still a remarkable gap remains unexplained by the HCT. The measures of average male-female pays differences for a certain point of time is the unadjusted wage gap, after certain time period the adjustment for the features of human capital, an unexplained part of the wage gap is measured. The adjusted wage gap can be called discrimination (Oaxaca, 1973).

The gender wage gap is strongly correlated to the difference of genders in occupations. It is witnessed from a previous studies that male and female are asymmetrically distributed in specific professions, this gender separation can be experience globally. Professions like childcare, retail sales, secretaries, and care nurses are covered with females and females tend to get minimum wages as associated to the jobs where male are more dominant. The proportion of male-female working in different directions also affects the earnings rate of the female. Females labor force disproportionately having low inflow in term of occupations including clerical jobs, retail sales, and teachers. Whereas males disproportionately engaged in professions that having high paid jobs that include doctors, engineer, lawyers, scientists, etc. (Gunderson, 1994; Blau et al., 2006). As women engage in part-time work while, there is no impact of irregular employment on salaries as there is low exchange for experience so, female controlling jobs are favored by some status (Polachek, 1981; Becker, 1993). Bergmann (1974) postulated the Occupational Crowding Hypothesis and explained that companies analytically ignore female from certain jobs because of family responsibilities. Such work is often mostly chosen by female where discontinuous periods of labor force experience do not degrade the skills. Females might not be completely dedicated to working like men and would choose part-time jobs and to engage at place which are near to house and leave workplace possibly to have children. This unexpected working practice leads to deep availability of female work force in certain occupational directions which is high as comparatively to market demand, so it consequently leads to congested occupations with lower remunerations. Moreover, this kind of jobs to be distributed in female as a result,

the flooded supply of labor specify to decrease the marginal productivity and lower the wages. The same situation exist in case of male labor force in such areas where female pursue to prefer some time where to receive low wages and female select such jobs because they do not have any alternate opportunities due to individual preferences. The male-female wage gap is affected by gender isolation in case of work which is displayed by the overcrowding model. The case female employment are mostly dominated in a job market where the supply of labor is higher than demand so this situation effects worse wages concept as compared to the male dominated jobs where supply of labor is lower than demand so it encourage wages rate. Here, the assumption lies that without discrimination, males and females are equal substitutes. This indicates that employers are not to be biased in hiring of both the genders. The transfer of male-female labors is stay remain until the pay rate recorded be the same in both employment sectors. The male and female wages determination is dominated in term of jobs where market forces is shown by the crowding model. However, the female supply of labor is greater in female dominated employments is not solely explained by this model. There are other several causes for the relevant low wages rate including the discouragement of female in term of education and constraint to only occupation because of the consequence of prejudiced behavior on educational achievement in the pre-labor market (Altonji and Blank, 1999). Thus, there are limitation in the opportunity of labor market which is limited in the accumulation of human capital. The women discrimination is in contradiction mode, female willing to choose the way of sharper earning during their lifespan and receive lower wage due to asymmetrical work. In case of developed countries male prefer employment opportunities with having greater financial inflow whereas female favor in employment with a working flexibility improved environment.

Becker (1971) identified that a major differences in professional structure, manufacturing structure and human capital still a major mass of wage discrepancy is unfair. The theory clarified that the indefensible portion is due to gender discrimination. Becker also encompasses economic discrimination which explained when parallel workers receive different incomes while liable to the same job having different opportunities for promotion and employment for instance workers difference in pays having the identical employment capabilities. This wages discrimination leads to the behavior of subordinates, economic unjust toward women.

Ashraf (1993) concluded that the wage differential in Pakistan occur optimal rate in all provinces. Household Income and Expenditure Survey (HIES) helps to confirm that the estimate for male-female level of income is considered to rise with the level of education for both males and female during the period of (1979 and 1986). He illustrated that the major difference in wages was 63.27% in the year 1979 and in the year 1986 it was reduced to 33.09%.

Siddique et al., (1998) explained gender discrimination the clear up that of evidence, the study used Standard Decomposition Method which was early used by (Oaxaca 1973). Gender wage differences was distributed into a couple set of causes with differences between characteristics and incomes successively proved gender discrimination in order to specifies biasness in labor market. Siddique also observed the same study in term of income gap between males and females in an array of 55%-77% respectively. Tansel (2004) carried out a study on wage differentials in domain of the public and private sector. Public administration and State Owned Corporations are not equally distributed among public and private sectors. The results concluded that public domains and earnings of state owned corporations are higher than the contrary private spheres, the given situation is not valid in case of universities. The level of biasness in private sector directed a high salaries in favor of men rather than women. The study demarcated the comparison of pay gap in both public and private sector employs, on the contrary there is comparison of public and private sector in term of payment in higher education institution.

Chaudhry (2007) discussed that the gender wage difference can be reduced in work force by spending in the direction of education. Latest research studies in least developing countries find that getting of education degree has a progressive impact on the female labor force and gender wage gap. The measurement of Asian countries also confirm that the ratio of higher education is very essential for decreasing the gender wage variances and increasing the level of involvement of female in labor market. The study also showed that the period between 1970-2005 endorse the investigating effects of gender discrimination in education and economical intensities of an individual. On the other hand, the study show that gender discrimination directly badly effect the economic progress because it drops the usual human capital. In short the study concluded that the attainment of better education, health facilities and

nutritional conveniences can achieve better economic progress and indirectly this will help in depressing the poverty level in Pakistan.

Yasin and Chaudhry (2012) used the cross-sectional data investigation in case of Pakistan toward the labor survey which facilitated him to observe encouragements of gender wage. The study observed that proficient skills and adequate education an essential involvement in labor market of Pakistan. This study explained that economic and social elements in order to limit the restrictions for women.

According to Nasser (2016) the strategy of poverty control is the only reason of gender differentials of income in Pakistan. It was experienced that less poverty level and the gradual growth in the economy was perceived, when the genders inequality is reduced. So it is observed conditionally that if we disregard gender favoritisms toward income then we can deal with poverty. For this purpose, HIES was used to observe the reasons behind inequality between genders. Mincerian Model were implicitly used to have an estimate about their factors, Gini Index regression were employed as a methodology. It was observed in five years that a ratio from 0.44 to 0.53 recorded to decline under the PRP program. It result has been resolved that if the government recovers its services definitely inequality between genders can be dropped.

METHODOLOGY

Theoretical Framework

This section explains the different theoretical and conceptual factors of gender wage gap in order to choose the most suitable technique to relate the wage gap between male and female respectively. In order to examine the gender wage difference, the best suitable method used to quantify the earning rate is Minser Earning Function developed by (Minser, 1974). However, this function is essentially based on a human capital model, which mentions that gender wage rate depends on education level, experience and occupation etc. Shapiro and Stelcner (1999) generalized that earning model of Mincerian is used to identify the variances between the male and female earning rates in both public and private sectors.

Mincer equation

The model of the Mincer earning is used to see the comparability differences between the various ethnic income groups. For instance, the difference between wage rate of male and female, working status in both the public and private sector etc. (Chiswick, 1983a; Quinn, 1979; Shapiro & Stelcner, 1989; Assaad, 1997 many others).

$$\ln w = \beta_1 X + \varepsilon \dots \dots \dots eq (1)$$

In Mincer equation w is the monthly wages of males and females with a natural logarithm, X indicates a vector of explanatory variables, β stands for the coefficient and ε denotes error term.

Model Specification

The exact specification of the Mincer earnings function, which is adopted by estimating this study, to check the gender pay gap in the private sector in lower kurram Parachinar, is given as;

$$\ln Wg = \beta_0 + \beta_1 edu + \beta_2 occ + \beta_3 Gn + \beta_4 exp + \beta_5 exp^2 + \varepsilon \dots \dots (a)$$

and will also estimate the model to find the effect of education concerning gender on earning.

$$\ln Wg = \beta_0 + \beta_1 edu + \beta_2 occ + \beta_3 Gn + \beta_4 exp + \beta_5 exp^2 + \beta_6 Gn * Edu + \varepsilon \dots \dots (b)$$

Wg = wage rate, edu = education, Occ = occupation, exp = experience, Gn = gender (1 for female ; 0 for otherwise)

Table No. 1 Regression Results of Health Sector

Sectors	Variables	Coefficients Model (a)	Significant Mod(a)	Coefficients Mod(b)	Significant Mod(b)
	Occp	.12	.00	.13	.02
	Edu	.22	.00	.17	.00
	Exp	.09	.03	.08	.02

Health Sector	Gen	.09	.02	.33	.04
	Expsq	-0.02	.04	-.05	.02
	Gen*edu			.11	.02
	R-Square	0.61	0.63		
	F-Square	15.12	0.00	12.9	.00

(Source: Author own compilation using SPSS)

The above table shows that the value of R square is 0.61, and 0.63 of model a and b respectively which means that the 61% to 63% deviation in dependent variable because of independent variables and others is due to the term of stochastic error. The F value is 15.12 and is significant at 0.00, and 12.9 (0.00) which means that the model fits or all the variables in the model are collectively significant. The quadratic empirical coefficient (experience square) is -0.02 and has a negative relationship with the dependent variable. The t value of occupation education, experience, gender and experience indicate that all variables are statistically significant.

Table No. 2 Regression Results of NGOs Sector

Sectors	Variables	Coefficients Model (a)	Significant Mod(a)	Coefficients Mod(b)	Significant Mod(b)
NGO's Sector	Occp	.23	.00	.11	.01
	Edu	.14	.00	.12	.03
	Exp	.18	.03	.09	.00
	Gen	.15	.02	.13	.03
	Expsq	-0.05	.04	-.01	.02
	Gen*edu			.26	.01
	R-Square	0.36	0.34		
	F-Square	2.26	0.03	2.52	.00

(Source: Author own compilation using SPSS)

The above table shows that the value of R square is 0.36, and 0.34 which means that there is a 36% deviation in the dependent variable due to independent variable and the others are caused by the stochastic errors. The F value is 2.26 and significant at 0.03, and 2.25(0.00) which means that the model is well implemented or all the variables in the model are collectively significant. The coefficient of all variables of model a and model b positive correlation with dependent variable except expsq, has a negative relationship with the dependent variable. This leads to the conclusion that men produce more than women and that there, is a gender wage gap in the private sector. The t value all variables are statistically significant.

Table No. 3 Regression Results of Banking Sector

Sectors	Variables	Coefficients Model (a)	Significant Mod(a)	Coefficients Mod(b)	Significant Mod(b)
Banking Sector	Occp	.23	.00	.11	.01
	Edu	.09	.00	.13	.00
	Exp	.03	.03	.06	.02
	Gen	.12	.02	.18	.01
	Expsq	-0.01	.04	-.05	.04
	Gen*edu			-0.01	.04
	R-Square	0.72	0.73		
	F-Square	1.96	0.00	1.09	.00

(Source: Author own compilation using SPSS)

The above table3 shows that the R-square value is 0.72in model a, and .73 in model b which means that 72% deviation in dependent variable is due to independent variables and others with the term of stochastic error. The F value is 1.92 and significant at 0.00of model a and1.09(0.00) of model b. The t values of occupational level, education, experience, gender and experience square indicate that all variables are statistically significant.

The above table shows that the value of R-squared of model a is 0.58, and model b is .54 which means that 54 to 58% deviation in the dependent variable is due to independent variables and others is due to stochastic errors. The F value is 8.42 and significant at 0.00 in model a and 6.97 (.00) in model

b.This means that the model is well implemented or all variables in the model are statistically significant. The coefficient of all variables have positive relation with dependent variable. Empirical coefficient experience square has a negative relationship with the dependent variable in both models. The t values of all variables are statistically significant.

Table No. 4 Regression Results of Education Sector

Sectors	Variables	Coefficients Model (a)	R	Coefficients Mod(b)	Significant Mod(b)
Education Sector	Ocp	.04	.01	.04	.01
	Edu	.13	.00	.12	.01
	Exp	.08	.02	.08	.02
	Gen	.14	.01	.02	.04
	Expsq	-0.04	.01	-.04	.04
	Gen*edu			.02	.02
	R-Square	0.58	0.54		
	F-Square	8.42	0.00	6.97	.00

(Source: Author own compilation using SPSS)

Now we take all different sectors to check the effect of independent variables on dependent variable, so occupation variable has not required because profession did not rank with different numbers.

Table No. 5 Over all Model Results

Variables	Coefficient	Significant
Edu	.08	.00
Exp	.06	.03
Gen	.13	.02
Gen*edu	.02	.01
Expsq	-.02	.03
R-Square	F-test	
.78	2.85	.00

(Source: Author own compilation using SPSS)

The above tables shows the overall results of the private sector, the R-squared value is 0.78, which means that the dependent variable deviates 78% because of the independent variable, while others in term of stochastic errors. The F value is 2.85 and significant at 0.002, which means that the model fits or all the variables in the model are collectively significant. The level of education is 0.08 and shows a positive correlation with the dependent variable of salary if an increase in education by 1% increases salary by 0.08%. The level of experience is 0.06 and shows a positive correlation with the dependent variable of salary if an increase in experience by 1% leads to an increase in salary of 0.08%. The square of the experience coefficient is -0.02 and has a negative relationship with the content of the dependent variable. The gender coefficient is 0.13 and shows a positive relationship with the salary of the dependent variable and the coefficient of gender * education is .02, which also shows a positive relationship with the salary of the dependent variable in the private sector. The t values of education, experience, gender and experience indicate that all variables are statistically significant.

In all tables, the independent variable experience square has a non-linear effect on the wage rate. At beginning the effect is positive but soon after the maxima the experience square start to have a negative impact on wage rate. So, experience square is increasing at decreasing rate function in all sectors.

CONCLUSION

The gender wage gap has been a common area of research both in developed as well as Pakistan like developing countries. This study was aimed at to analyze gender income difference by using most recent survey data in Lower Kurram Parachinar. In this study both determinants of income for males and females differences in income were conducted. Findings suggest that the occupation, education, experience and gender as the main determining factors of income and its gap between males and females in private sector. The purpose of this paper is to estimate and determine the factors playing an important

role in determination of monthly earnings of the individual and to find the gender wage gap in private sector. The primary data of wage gap of gender is collected from 200 respondents in Lower Kurum Parachianr. The OLS regression and descriptive analysis are used to find the relationship between dependent variables and independent variables.

The empirical findings showed that education and experience of the employ increased the earnings of the labor force. This finding supported the human capital theory. The study also indicated that higher earnings were associated with higher level of education. When both male and female get more education then the wage gap is reduced but in lower kurrum mostly parents focus more on son education then their daughter, that's why female get basic education, which impact on their salary. The experience has a positive and significant impact on gender wage gap, if both male and females has experience 5 plus years then his/her salary will be greater than the less experienced employee.

The impact of gender on monthly wage is positive and significant which clear show that males are earns more than females. One particular aspect of wider gender wage gap is the gross discrimination of particular choice of occupation. As per the above mentioned research, gender pay gap exists within occupation even after number of years of experience and education. The occupation has a positive and significant impact on gender wage gap. The respondents are specialized in different job like teachers, doctors, NGO workers, nurses, and bank officers etc., all low to high level job are included. Therefore, the wage differential exists in both male and female according to their level of job. The results revealed that male worker enjoyed an earnings advantage over female worker with the same characteristics. From the above mentioned research and uses of all models, it is evident that the female is economically discriminated due to their earnings. This study shows that gender wage gap is hurting the most marginalized gender (women) of society.

Suggestion for Policy makers

The study shows that women do not enjoy the same opportunities as male counterpart. It would only be possible in implementation of equal rights amendment in true letter and spirit. Therefore, it is the responsibility of the individuals, communities, government and employers to effectively take consolidated steps to close the gender wage gap. The occupation gender wage gap will increase the human development and the economic development. This gender gap will not take to any private, public and NGO's need to encourage women to participate labor workforce and create opportunities for women with higher or equal incentives as compared to their male counterparts. This will help in maintaining a healthy economy and prospers human development.

The following indication are recommended for enlightening gender gap especially women status in the country:

- Initiation of constant wages for both male and female work force in term of numerous formal and informal segments of the economy.
- Parents should be informed to stimulate female children in order to take dynamic part in economic activities, education and household decision.
- Education is one of the key tools for accomplishing gender fairness. It results, in growth to economic efficiency, decline infant mortality while improving educational and health prospects. More approaches and incentive programs in education should adopted for girls need to enhanced self-efficiency.

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