

OPPORTUNITY COST OF HOUSEHOLD WORK: GENDER PERSPECTIVE FOR PAKISTAN

Humera Sultana*

Staff Economist/ Lecturer, Applied Economics Research Centre
University of Karachi, Pakistan, Karachi-75270
hms_57@hotmail.com

Hamna Nasir

Ph.D. Student, Applied Economics Research Centre, University of Karachi, Pakistan
Karachi-75270 hamnainfinite@gmail.com

ABSTRACT

Time allocation has always been considered an important factor to manage household activities for working hours and leisure. Females spent their substantial time to domestic chores, hence these responsibilities bounds their economic opportunities. The opportunity cost of household work especially for female accounted for higher therefore a vast segment of the society remains deprived and are not allowed to play their role in the labor market. The objective of the study is to find the opportunity cost of household work by region, province, age group, and gender for a different types of activities. Further study also explores the gender gap of household hours by Oaxaca and Blinder decomposition. Data for this study is gathered from the Labour Force Survey of Pakistan (LFS) for the period 2014-2015 and 2017-18. The findings of this study reveal that female household hours exceed male household hours. The opportunity cost of cooking and child-care are higher in rural and urban Punjab for females, while the opportunity cost for males is higher for firewood collection and fetching water.

Key Words: Time Allocation, Household Work, Opportunity Cost, Oaxaca Blinder Decomposition
JEL Classification: J22, D13, J3, B41

INTRODUCTION

Economic opportunities for women are mostly affected by the time, as time consuming responsibility make them overburdened, hence their participation in the labour market remain limited. As it has been accounted that the opportunity cost of household work for women observed higher than for men. Therefore, a vast segment of society in half of them represented by women deprives from basic education attainment and further employment opportunities. In Pakistan, the average household hours of male and female for rural areas are around 8hours/week and 40 hours/week, while in urban household hours average household hours of male and female are 6 hours/week and 41 hours/week respectively (LFS 2017-18). This is a fact that women household work play an important role in the construction of household wellbeing that has never been accounted in the national accounting system.

Becker's (1965) theory for time allocation and efficiency to non-working hours becomes more important for economic welfare than the working hours. Time allocation is noted as a crucial issue for the economy, although, time spent in labour market is considered more valuable than the time spent on household work. In a household, contributions of women and men for labour market raised the household income as well as resolved the financial crises for supporting the family.

In developing countries usually perception of society depends upon women that are responsible for household activities, while men concentrates on income-generating activities by allocation of time. Women in poor households have more working responsibilities than women in rich household discussed by Illahi (2001), who conducted a study in Peru to find out the determinants of intra-household time allocation by gender and explore the water and energy services that are massive factors to affect the time allocation.

Mason et. al (2004) study for women in Sub-Saharan Africa employed for numerous creative and reproductive work schemes spend more time as compared to men on workplace, particularly in

* Corresponding Author

household production and childcare activities. Marcelo et.al (2007) also supported the same condition of women in Bolivia, prolong working hours make overburden for women than men as the Wodon et. al (2010) found in Sierra. Majority of women suffer due to gender inequality, long working hours like average total work time/week rises to 52 hours/week for women, whereas it is merely 36 hours/week for men explored by Robles et.al(2010) in Ethiopia. Domestic work noted for 10 hours longer than men.

Frances and Russell (2008) in Ireland found that the nature of work restricts women in household being an employee as well as parent, childcare activity remained the first priority for every household women while men considered are more involved for income generating activities for the family. Different segments of market behavior concerning time and shopping that interlink to each other conducted by Paitoon and Gary (2000) and found that the market segmentation usually depends upon consumer behavior and shopping trends.

Labour force participation of Indian women in domestic activities discuss by Fletcher et al., (2017), Mehrotra et.al (2014) also analyze that merely 22% of Indian women are engaged in the labour force, out of which 70% are engaged in farm activities. Since these activities are informal in the economy of India, the unpaid work of women is characterized as informal, invisible, and unrecognized. (Crow 2009; Patel et.al 2016). Hirway (2015) explore the burden of domestic work is fortified due to a lack of adequate public provision in critical sectors.

and sanitation, food security energy, health, and livelihoods). Globally average time spent by men is 83 minutes on domestic chores, while women spent 265 minutes, which is three times more than men Addati et.al. (2018).

Arshad (2008) estimate the opportunity cost of household work for rural and urban women of Pakistan. The opportunity cost of a single urban household estimated around 48,000 Rs per year and for a single rural household made 25,800 Rs per year. Hence, women's household work provides direct and indirect financial assistance to families and it also provides financial support to the entire economy. The study further estimates the determinants of household work through OLS and the decomposition of the gender gap through Oaxaca and Blinder.

The organization of the study consists of the following segments, after introduction, the second section comes about methodology and estimation technique, while the third section covers descriptive and empirical results and the last s focus on conclusions and policy implications.

Objective of the Study

The aim of the study is to find the opportunity cost of household work by province, region, age groups, and gender for different types of activities. Further study will explore the gender gap of household hours by Oaxaca and Blinder decomposition method.

METHODOLOGY DATA AND ESTIMATION TECHNIQUE

To discuss the determinants of household hours as a dependent variable with the Relationship of independent variables are shown by equation 1. The data is collected from Labor Force Survey (LFS) of Pakistan for the period 2014-15 and 2017-18 which is conducted by the Pakistan Bureau of Statistics (PBS). For the estimation purpose, Ordinary Least Square Method (OLS) is apply, while to analyze the household hours gap Oaxaca and Blinder's (1973) method is used.

As the model of the study explained household hours by gender are influenced by the explanatory variables which are given in the following equation;

$$hhwrk_g = \alpha_0 + \alpha_1 PC + \alpha_2 SE + \alpha_3 LM + \mu_i \text{_____} (1)$$

Construction of variable by equation in detail represents like that *hhwrk* is used for weekly household hours and subscript *g* represents gender. Explanatory variables that are included in the model consist of personal characteristics *PC* such as (age, age^2 , marital status, and education), *age* by gender means higher the age will cause to increase the household hours, while age^2 (square of age) is used as a proxy of experience showing household hours. As experience increases, household hours among gender decline while leisure and other activities increase as the younger generation takes their place.

Marital status represents unmarried, married, widowed and divorced, to know the relationship of personal characteristics. This study hypothesized that these factors may have a positive or negative effect on household hours by gender. Household hours of married women becomes more than unmarried because of increasing husband and child care activities with raising family issues. Years of

education may have a positive effect on household hours especially for females who are less educated because they have to make their time to perform household chores as compared to generate income whereas, years of education may have a negative effect on household hours as educated individuals will make use of their education and participate in the labour market.

Similarly, how the socioeconomic variables *SE* (household head characteristics dependency ratio and household size) impact on household hours. The dependency ratio may have a positive and negative relation with household hours. It may have a negative effect on male household hours because they are family earners. While it has a negative effect on female household hours because responsibilities of childbearing and rearing and taking care of adults lie on their shoulders besides performing other household chores.

It is hypothesized if a male is a household head then household hours for a male may decline as they may be encouraged to participate in labour market or their investment in human capital may increase. On the other hand, if a female is a household head then the household hours of other females will increase because especially mothers are responsible for training their daughters for household chores, hence it will increase their household hours. Increase in household size or raising dependency ratio will increase the tendency to get a job household income will increase and decline the household hours for both male and female as they may now make investment in human capital or they may spend their investment for labour-saving technologies or to hire a maid.

The concern of gender, province, and regional impact on household hours are discussed here. Rural region is taken as a reference category; household hours may have a positive or negative effect on urban residents depending on the socio-economic condition of the region and household. Among provinces, KPK is taken as a reference category. Males and females residing in Punjab, Sindh, and Balochistan may have a positive/negative relation to household hours as compared to KPK depending on socio-economic conditions and cultural norms and traditions of the province.

Estimation Technique

For the household hours function, the Mincer function by gender is followed which is explained in equation (2).

$$hhwrk_i = \beta X_i + \varepsilon_i \quad (2)$$

Variable $hhwrk_i$ shows average weekly household hours for each individual i , X_i is a vector of (individual attributes). While β is a parameter estimated by OLS and ε_i represents the error term.

The household hour gap is divided into two parts used by Oaxaca and Blinder method. The first part consists of the difference in average weekly household hours gap while the other is based on the difference in returns to individual-level attributes which is expressed by an equation. 3

Overall difference for weekly household hours by gender is measured by the formula

$$D = \frac{hhwrk_m}{hhwrk_f} - 1 \quad (3)$$

Here D represents the ratio of weekly household hours by male and female $\frac{hhwrk_m}{hhwrk_f}$. After combining equation (2) and (3), overall male female household hours are found which are shown in equation (4AA);

$$D = \overline{hhwrk_m} - \overline{hhwrk_f} = \beta_m \bar{X}_m - \beta_f \bar{X}_f \quad (4)$$

- $\overline{hhwrk_m} - \overline{hhwrk_f}$ shows average household hours by gender
- \bar{X}_m and \bar{X}_f shows productive attributes of both gender
- β_m and β_f vectors of estimated coefficients obtained from separate regressions by gender

Following Oaxaca and Blinder, equation (4) is decomposed as;

$$D = (\bar{X}_m - \bar{X}_f) [\Omega \beta_m + (I - \Omega) \beta_f] + [\bar{X}_m (I - \Omega) + \bar{X}_f \Omega] (\beta_m - \beta_f) \quad (5)$$

Where I , represent identity matrix and Ω shows a sloping matrix of weights.

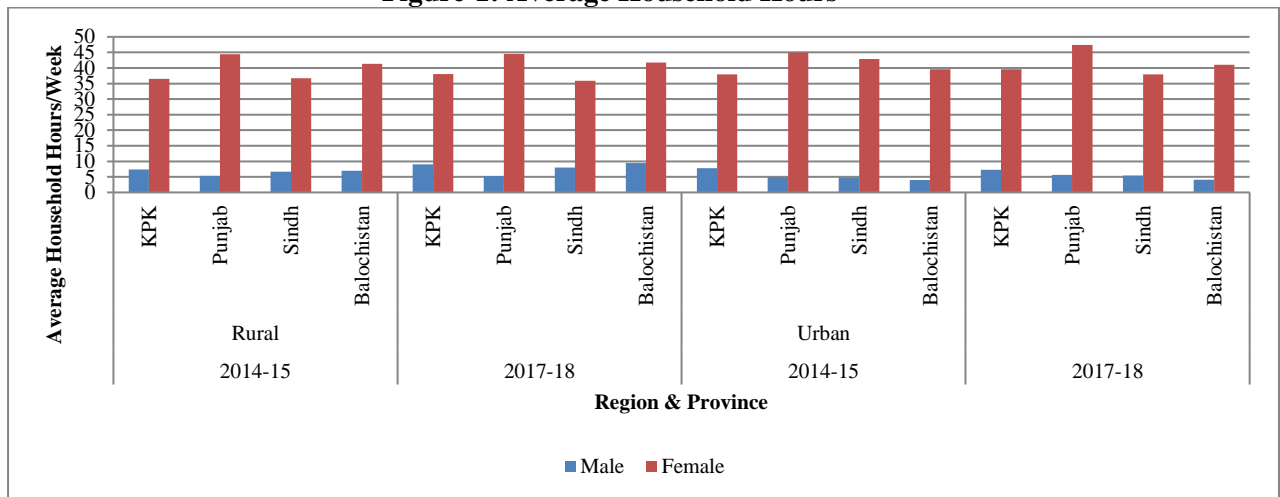
Equation (5) shows the difference in weekly household hours and it is divided into two parts. The first term on the right side shows the gap in household hours attributable to differences in mean

productive attributes of male and female workers. Whereas, the second term on the right represents discrimination and the effects of other omitted factors.

a. Descriptive Statistics

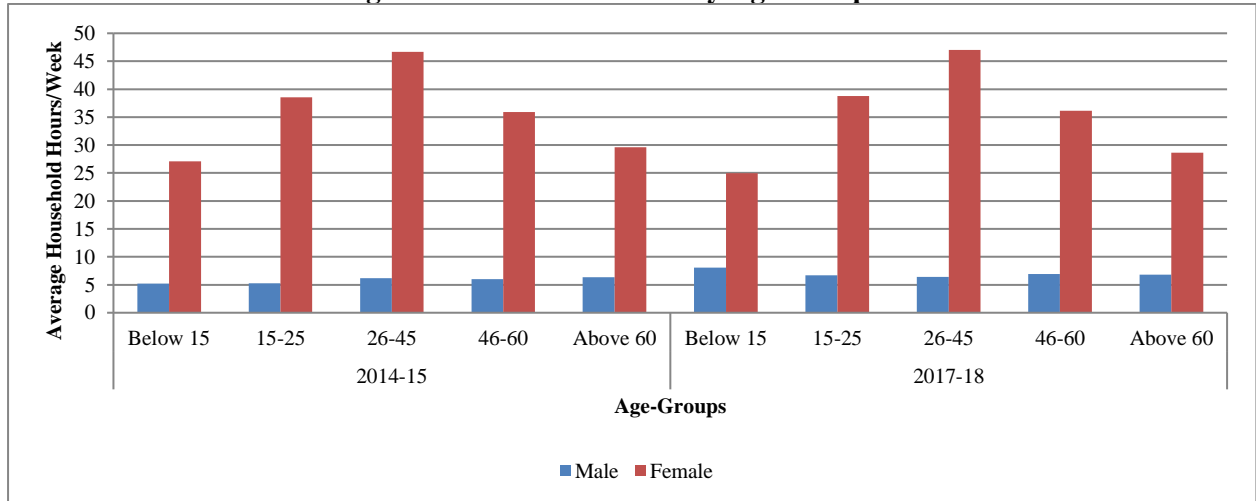
The following figures (1 and 2) show gender-wise household hours by province and region and age groups respectively. Overall, female household hours according to respected years 2014-2015 and 2017-2018 are found more than males as mostly females spent their time on household activities. Household hours remained highest in rural and urban Punjab for females and for males that shows higher in Balochistan and KPK. Increasing female household hours observed by the age group of 26-45 years because they have more domestic and family responsibilities in this age group.

Figure-1: Average Household Hours



Source: Author's Illustration

Figure-2: Household Hours by Age Groups



Source: Author's Illustration

b. Opportunity Cost of Household Working by Gender Province & Region:

As opportunity costs play a significant role in allocating the time for different activities. According to Annex-1(a) and Annex-1(b), the opportunity cost of household work for female in 2014-15 shows that in rural area of Punjab, cooking activity remained higher that is around Rs. 57,000/week. Similarly, the same results found for urban areas to same activity. In 2017-18 Child-care activity represents the highest opportunity cost in urban Punjab which is around Rs. 56,250/week, while the same amount is shown for cooking activity in rural KPK. Whereas urban Punjab and KPK address the highest amount of child-care i.e. Rs. 67,000/week and for cooking it is Rs 60,000/week. Mostly in developing countries, the opportunity cost for female for cooking and child-care activities is higher, as these are time-consuming

activities. Therefore, their opportunity cost is also higher. The opportunity cost of the female is higher for child-care and cooking for the age group of 26-45.

The opportunity cost for male household work by province and region is higher in urban Sindh and KPK for firewood collection and fetching water which is around Rs.21,000/week and Rs. 18,000/week respectively. For shopping and marketing, it is found to be Rs. 14,000/week and Rs.21,000/week in rural Punjab and Balochistan and it is Rs. 30,000/week in rural KPK for firewood collection. The opportunity cost of a male is higher for a male child for firewood collection and shopping and market it is higher for the age-group 26-45. Over all the average household working hours by province and region in respective years found in Punjab province in that urban Punjab female working hours accounted highest.

EMPIRICAL RESULTS

To estimate the determinants of weekly household hours as a dependent variable with the relation of independent variables are given as in Equation.1, by using OLS regression empirical results are divided into two regressions by Female and Male household working hours. The estimation results are as follows;

Determinants of Female Household Hours

Table.1 (a) presents the results for Female household hours. The result shows that as female age increases it shows positive and significant relation to the household working hours. As age increases, household hours decline while after reaching a threshold level of age household hours decline because their work is allocated to the young generation. Years of education also show a positive and significant effect on household working hours. A more educated person can get good job opportunities as well as a good salary which will cause to increase in market hours, while most females are engaged in household activities which leads to an increase in their household hours. One percent increase of educated females increases household hours by 32.3%. The marital status reflects the married and widow/Divorced categories of a female giving positive and significant results for household working hours. Results further show that no of dependents for children age (6 to 14 years) and adults also indicate increasing household working hours because an increase in the number of dependents will increase the responsibilities of females.

In the presence of the female head of the household, the household working hours could be shared by the other family members that are showing positive and significant effects. With respect to region females in urban areas have higher household hours as compared to a rural area. Female residents of Punjab, Sindh, and Balochistan show a positive and significant impact on household working hours for the year 2014-15 while in 2017-18 only Sindh province indicate negative signs due to social and cultural norms.

Table -1 (a): Determinants of Household Working Hours by Female

	2014-15	2017-18
Dependent Variables: Household Hours (Weekly)		
Personal Characteristics		
Age	1.117*** (0.032)	1.151*** (0.030)
Age ²	-0.0174*** (0.0004)	-0.0179*** (0.0003)
Education		
Years of education	0.323*** (0.018)	0.164*** (0.012)
Marital Status		
Married	10.38*** (0.245)	11.08*** (0.231)
Widow/Divorced	6.345*** (0.446)	6.183*** (0.418)
Number of Dependents		
Number of children under 6 years	0.175* (0.105)	1.001*** (0.050)
Number of children between 6-14 years	0.775***	0.752***

	2014-15	2017-18
	(0.075)	(0.058)
Number of Adults above 65 years	0.997*** (0.162)	0.424*** (0.151)
Household Characteristics		
Household Head	1.224*** (0.361)	1.210*** (0.334)
Household Income	4.69e-06 (1.38e-05)	-1.15e-05 (1.09e-05)
Region		
Urban	0.0639 (0.149)	0.830*** (0.144)
Province		
Punjab	7.790*** (0.195)	7.603*** (0.177)
Sindh	2.327*** (0.211)	-0.767*** (0.196)
Balochistan	3.264*** (0.255)	2.088*** (0.232)
Constant	10.46*** (0.507)	10.79*** (0.478)
No. of Observations	47,753	53,463
R-squared	0.216	0.237
F-Statistics	939.22 (0.000)	1185.2 (0.000)

Source: Author's Estimation

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Determinants of Male Household Hours

Similarly, the relationship is explained for the determinants of household working hours for male and its empirical results are given in Table 1 (b). No association is observed between male age and square of age for household working hours. The regression result shows to the years of education increase has a negative effect on male household hours means as males have diversified economic opportunities. The marital status of male for both categories shows a negative relationship with household hours as they have to support their families which increase their market hours and declines their domestic work. Male residents of the urban region and Punjab have a negative and significant effect on their household working hours depending on the socio-economic conditions of the province and region.

Table-1 (b): Determinants of Household Working Hours by Male

	2014-15	2017-18
Dependent Variables: Household Hours (Weekly)		
Personal Characteristics		
Age	0.144 (0.092)	0.152 (0.103)
Age ²	-0.00169 (0.001)	-0.00175 (0.001)
Education		
Years of education	0.0149 (0.062)	-0.0351 (0.052)
Marital Status		
Married	-0.442 (0.889)	-1.762* (1.001)
Widow/Divorced	-2.090* (1.244)	-2.980* (1.599)
Number of Dependents		

	2014-15	2017-18
Number of children under 6 years	-0.0627 (0.410)	0.139 (0.195)
Number of children between 6-14 years	0.0817 (0.299)	-0.0629 (0.228)
Number of Adults above 65 years	0.682 (0.499)	0.909 (0.685)
Household Characteristics		
Household Head	0.657 (0.603)	1.455* (0.844)
Household Income	8.73e-05** (4.33e-05)	-5.14e-05 (3.37e-05)
Region		
Urban	-0.704 (0.503)	-1.127* (0.593)
Province		
Punjab	-2.362*** (0.622)	-2.705*** (0.717)
Sindh	-1.044 (0.926)	-0.712 (0.807)
Balochistan	-0.901 (1.805)	-0.080 (1.142)
Constant	5.058*** (1.483)	6.913*** (1.565)
No. of Observations	258	312
R-squared	0.131	0.115
F-Statistics	2.63 (0.0014)	2.77 (0.0007)

Source: Author's Estimation

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Decomposition of Household Hours Gap:

Overall the difference in household hours in form of decomposition with respect to gender is presented in Table.2. The difference in household hours between males and females has been further decomposed into marital status, education attainment, number of dependents, and household income, province, and region. The household hours gap seems to be reduced from 2014-15 to 2017-18.

Moreover the individual's characteristics explain most of the differences in household hours. In 2014, 63.47% is the unexplained household hour gap, due to cultural norms and tradition female are engaged in domestic chores. The gap has increased from 2014 to 2017, as domestic responsibilities especially for females have increased. Due the fewer employment opportunities, wage differential, discrimination in labour market, and higher domestic responsibilities declines their participation in the labour market. Further, if female participation increases in labour market then household chores performed by her may be affected. The unexplained part is often regarded as the prejudice or due to the absence of detailed controls for all possible relevant factors of household characteristics and individual specific skills. (Su and Heshmati, 2013).

Table. 2: Decomposition of Household Hours Gap

Independent Variables	2014-15	2017-18
Household Hours	35.43	34.41
Age	0.22	0.23
Square of Age	-0.13	-0.13

Independent Variables	2014-15	2017-18
Education	0.01	0.01
Married	6.05	5.46
Widow/Divorced	0.38	0.41
Number of children below 6 years	0.01	0.02
Number of children between 6-14 years	0.02	0.02
Number of adults above 65 years	0.00	-0.01
Household Income	0.00	0.00
Household Head	-0.08	-0.20
Urban Region	0.26	0.67
Punjab	4.86	4.70
Sindh	0.81	0.00
Balochistan	0.54	0.26
Total Explained	12.94	11.45
Total Explained (%)	36.53	33.29

Source: Author's Estimation

CONCLUSION AND POLICY RECOMMENDATIONS

Time allocation has always been considered an important issue for the household especially concern by the female household working hours. In developing countries, the female household hour has always remained gratter than male household hours due to their domestic responsibilities. The finding shows that the household working hours for female residents of rural and urban Punjab and male residents for rural and urban KPK noted higher. The opportunity cost of female is observed higher for cooking and child-care activities, while for males raises for firewood collection, shopping, and marketing.

Overall, the study concludes that awareness should be made about the fair distribution of responsibilities by gender for household working hours that may causes to reduce the gender gap in labor force participation.

REFERENCES

- Addati L., Cattaneo U., Esquivel V., & Valarino I. (2018). *Care work and care jobs for the future of decent work*. Geneva: International Labor Organization.
- Arshad, Z., Khanum, A., Ali, A., & Saeed, T. (2008). The economic contribution of Pakistani women through their unpaid labour. Islamabad: Society for Alternative Media and Research and Health Bridge.
- Becker, G. S. (1965). A Theory of the Allocation of Time. *The economic journal*, 75(299), 493-517.
- Blackden, C. M., & Wodon, Q. (2006). *Gender, Time Use, and Poverty in Sub-Saharan Africa*. World Bank Working Paper No. 73. Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/7214> License: CC BY 3.0 IGO.
- Crow, B., & McPike, J. (2009). How the drudgery of getting water shapes women's lives in low-income urban communities. *Gender, Technology and Development*, 13(1), 43-68.
- Fletcher, E., Pande, R., & Moore, C. M. T. (2017). *Women and work in India: Descriptive evidence and a review of potential policies*. HKS working paper no. RWP18-004. Cambridge: Center for International Development Harvard University.
- Hirway, I. (2015). Unpaid work and the economy: linkages and their implications. *Indian Journal of Labour Economics*, 58(1), 1-21.
- Ilahi, N. (2001). *Gender and the allocation of adult time: Evidence from the Peru LSMS panel data. paper for the policy research report on gender*. The World Bank.
- Marcelo, M., Rafael, G., & Joana C. (2007). *Gender inequalities in allocating time to paid and unpaid work: Evidence from Bolivia*. Working paper No 495. New York: The Levy Economics Institute.
- Mehrotra, S., Parida, J., Sinha, S., & Gandhi, A. (2014). Explaining employment trends in the Indian economy: 1993-94 to 2011-12. *Economic and Political Weekly*, 49(32):49-57.

- Oaxaca, R., (1973). Male-female wage differentials in urban labour markets. *International Economic Review*, 14(3), 693-709.
- Paitoon, C. & Gary, D. (2000). Segmenting the market for food shoppers using attitudes to shopping and to time. *British Food Journal*, 102(2), 81-101,
- Patel, S. J., Patel, M. D., Patel, J. H., Patel, A. S., & Gelani, R. N. (2016). Role of women gender in livestock sector: A review. *Journal of Livestock Science*, 7, 92-96.
- Russell, H, O'Connell, P.J., & McGinnity, F. (2008). The Impact of Flexible Working Arrangement on Work–life Conflict and Work Pressure in Ireland. *Journal of Gender, Work and Organization*, 16(1), 73-97.
- Su, B., & Heshmati, A. (2013). Analysis of the determinants of income and income gap between urban and rural China. *China Economic Policy Review*, 2(01), 1350002.

ANNEXURES

Annex -1 (a): Opportunity Cost of Household Activities (Rural) by Gender and Province

Years	Province	Household Activities	Opportunity Cost of Female HH Work/week (Rs)	Opportunity Cost of Male HH Work/Week (Rs)
2014-15	KPK	Sewing	9,000	0
		Shopping& Marketing	12,000	20,077
		Washing	21,000	0
		Child/Elder Care	24,000	0
		Child Education	12,000	0
		House Cleaning	21,000	0
		Cooking	45,000	0
		Firewood Collection	18,000	21,000
		Fetching Water	18,000	15,000
		Construction Work	12,000	9,000
	Punjab	Sewing	15,000	0
		Shopping& Marketing	15,000	14,747
		Washing	21,000	0
		Child/Elder Care	45,000	0
		Child Education	24,000	0
		House Cleaning	21,000	0
		Cooking	57,000	0
		Firewood Collection	12,000	15,000
		Fetching Water	15,000	24,000
		Construction Work	12,000	9,000
	Sindh	Sewing	15,000	0
		Shopping& Marketing	12,000	18,500
		Washing	18,000	0
		Child/Elder Care	30,000	0
		Child Education	21,000	0
		House Cleaning	21,000	0
		Cooking	39,000	0
		Firewood Collection	15,000	Rs18,000
		Fetching Water	15,000	Rs15,000
		Construction Work	12,000	12,000
	Balochistan	Sewing	24,000	0
		Shopping& Marketing	18,000	21,000
		Washing	24,000	0
		Child/Elder Care	30,000	0
		Child Education	21,000	0
		House Cleaning	21,000	0
		Cooking	33,000	0

Opportunity Cost of Household Work: Gender Perspective for Pakistan

Years	Province	Household Activities	Opportunity Cost of Female HH Work/week (Rs)	Opportunity Cost of Male HH Work/Week (Rs)
		Firewood Collection	18,000	21,000
		Fetching Water	21,000	21,000
		Construction Work	12,000	0
2017-18	KPK	Sewing	15,000	0
		Shopping & Marketing	15,000	26,333
		Washing	26,250	0
		Child/Elder Care	37,500	0
		Child Education	18,750	0
		House Cleaning	26,250	0
		Cooking	56,250	0
		Firewood Collection	18,750	30,000
		Fetching Water	22,500	22,500
		Construction Work	11,250	15,000
	Punjab	Sewing	15,000	0
		Shopping & Marketing	15,000	18,815
		Washing	26,250	0
		Child/Elder Care	56,250	0
		Child Education	30,000	0
		House Cleaning	30,000	0
		Cooking	63,750	0
		Firewood Collection	15,000	11,250
		Fetching Water	15,000	7,500
		Construction Work	18,750	18,750
	Sindh	Sewing	18,750	0
		Shopping & Marketing	15,000	22,379
		Washing	22,500	0
		Child/Elder Care	37,500	0
		Child Education	22,500	0
		House Cleaning	26,250	0
		Cooking	52,500	0
		Firewood Collection	15,000	18,750
		Fetching Water	18,750	18,750
		Construction Work	15,000	11,250
	Balochistan	Sewing	26,250	0

Years	Province	Household Activities	Opportunity Cost of Female HH Work/week (Rs)	Opportunity Cost of Male HH Work/Week (Rs)
		Shopping & Marketing	18,750	11,932
		Washing	22,500	0
		Child/Elder Care	30,000	0
		Child Education	22,500	0
		House Cleaning	26,250	0
		Cooking	45,000	0
		Firewood Collection	22,500	22,500
		Fetching Water	22,500	22,500

Source: Author's estimation by LFS

Annex- 1(b): Opportunity Cost of Household Activities (Urban) by Gender and Province

Years	Province	Household Activities	Opportunity Cost of Female HH Work/week (Rs)	Opportunity Cost of Male HH Work/Week (Rs)
2014-15	KPK	Sewing	9,000	0
		Shopping & Marketing	9,000	22,622
		Washing	18,000	0
		Child /Elder Care	33,000	0
		Child Education	15,000	0
		House Cleaning	24,000	0
		Cooking	48,000	0
		Firewood Collection	12,000	21,000
		Fetching Water	12,000	0
		Construction Work	9,000	12,000
	Punjab	Sewing	12,000	0
		Shopping & Marketing	15,000	14,447
		Washing	21,000	0
		Child/Elder Care	45,000	0
		Child Education	21,000	0
		House Cleaning	21,000	0
		Cooking	57,000	0
		Firewood Collection	15,000	0
		Fetching Water	15,000	0
		Construction Work	18,000	0
	Sindh	Sewing	15,000	0
		Shopping & Marketing	15,000	14,500
		Washing	21,000	0
		Child/Elder Care	33,000	0

Opportunity Cost of Household Work: Gender Perspective for Pakistan

Years	Province	Household Activities	Opportunity Cost of Female HH Work/week (Rs)	Opportunity Cost of Male HH Work/Week (Rs)
		Child Education	24,000	0
		House Cleaning	24,000	0
		Cooking	42,000	0
		Firewood Collection	18,000	0
		Fetching Water	21,000	0
		Construction Work	9,000	0
	Balochistan	Sewing	24,000	0
		Shopping& Marketing	18,000	12,000
		Washing	24,000	0
		Child/Elder Care	27,000	0
		Child Education	21,000	0
		House Cleaning	24,000	0
		Cooking	27,000	0
		Firewood Collection	18,000	0
		Fetching Water	21,000	0
		Construction Work	9,000	0
2017-18	KPK	Sewing	15,000	0
		Shopping& Marketing	11,250	25,338
		Washing	26,250	0
		Child/Elder Care	41,250	0
		Child Education	26,250	0
		House Cleaning	30,000	0
		Cooking	60,000	0
		Firewood Collection	18,750	18,750
		Fetching Water	26,250	26,250
		Construction Work	7,500	7,500
	Punjab	Sewing	15,000	0
		Shopping& Marketing	18,750	20,523
		Washing	26,250	0
		Child/Elder Care	60,000	0
		Child Education	30,000	0
		House Cleaning	30,000	0
		Cooking	67,500	0
		Firewood Collection	15,000	26,250
		Fetching Water	15,000	11,250
		Construction Work	18,750	0
	Sindh	Sewing	15,000	0

Years	Province	Household Activities	Opportunity Cost of Female HH Work/week (Rs)	Opportunity Cost of Male HH Work/Week (Rs)
		Shopping& Marketing	15,000	14,423
		Washing	18,750	0
		Child /Elder Care	41,250	0
		Child Education	30,000	0
		House Cleaning	26,250	0
		Cooking	52,500	0
		Firewood	15,000	18,750
		Water	18,750	15,000
		Construction	11,250	15,000
	Balochistan	Sewing	30,000	0
		Shopping& Marketing	15,000	12,750
		Washing	26,250	0
		Child/Elder Care	33,750	0
		Child Education	26,250	0
		House Cleaning	30,000	0
		Cooking	45,000	0
		Firewood Collection	26,250	18,750
		Fetching Water	22,500	18,750
		Construction Work	11,250	0

Source: Author's estimation by LFS

Annex-2: Opportunity Cost of Household Activities by Gender with Age Groups (Rs)

Years	Age Group	Household Activities	Opportunity Cost of Female HH Work/Weekly	Opportunity Cost of Male HH Work/Weekly
2014-15	10-14	Sewing	Rs15,000	Rs0
		Shopping& Marketing	Rs9,000	Rs12,000
		Washing	Rs15,000	Rs0
		Child/Elder Care	Rs24,000	Rs0
		Child Education	Rs15,000	Rs0
		House Cleaning	Rs21,000	Rs0
		Cooking	Rs36,000	Rs0
		Firewood Collection	Rs18,000	Rs21,000
		Fetching Water	Rs18,000	Rs15,000
		Construction Work	Rs9,000	Rs0
	15-25	Sewing	Rs15,000	Rs0
		Shopping& Marketing	Rs12,000	Rs15,000
		Washing	Rs21,000	Rs0
		Child/Elder Care	Rs39,000	Rs0
		Child Education	Rs18,000	Rs0
		House Cleaning	Rs21,000	Rs0

Opportunity Cost of Household Work: Gender Perspective for Pakistan

Years	Age Group	Household Activities	Opportunity Cost of Female HH Work/Weekly	Opportunity Cost of Male HH Work/Weekly
		Cooking	Rs45,000	Rs0
		Firewood Collection	Rs15,000	Rs18,000
		Fetching Water	Rs18,000	Rs18,000
		Construction Work	Rs12,000	Rs9,000
	26-45	Sewing	Rs18,000	Rs0
		Shopping& Marketing	Rs15,000	Rs18,000
		Washing	Rs21,000	Rs0
		Child/Elder Care	Rs36,000	Rs0
		Child Education	Rs21,000	Rs0
		House Cleaning	Rs24,000	Rs0
		Cooking	Rs51,000	Rs0
		Firewood Collection	Rs15,000	Rs15,000
		Fetching Water	Rs18,000	Rs12,000
		Construction Work	Rs12,000	Rs0
	46-60	Sewing	Rs15,000	Rs0
		Shopping& Marketing	Rs15,000	Rs18,000
		Washing	Rs18,000	Rs0
		Child/Elder Care	Rs27,000	Rs0
		Child Education	Rs18,000	Rs0
		House Cleaning	Rs21,000	Rs0
		Cooking	Rs48,000	Rs0
		Firewood Collection	Rs15,000	Rs6,000
		Fetching Water	Rs15,000	Rs15,000
		Construction Work	Rs12,000	Rs12,000
	Above 60	Sewing	Rs15,000	Rs0
		Shopping& Marketing	Rs15,000	Rs15,000
		Washing	Rs15,000	Rs0
		Child/Elder Care	Rs33,000	Rs0
		Child Education	Rs18,000	Rs0
		House Cleaning	Rs18,000	Rs0
		Cooking	Rs42,000	Rs0
		Firewood Collection	Rs18,000	Rs15,000
		Fetching Water	Rs15,000	Rs0
		Construction Work	Rs12,000	Rs0
2017-18	10-14	Sewing	Rs18,750	Rs0
		Shopping& Marketing	Rs15,000	Rs18,750
		Washing	Rs18,750	Rs0
		Child/Elder Care	Rs26,250	Rs0
		Child Education	Rs18,750	Rs0
		House Cleaning	Rs26,250	Rs0
		Cooking	Rs41,250	Rs0

Years	Age Group	Household Activities	Opportunity Cost of Female HH Work/Weekly	Opportunity Cost of Male HH Work/Weekly
		Firewood Collection	Rs18,750	Rs22,500
		Fetching Water	Rs18,750	Rs18,750
		Construction Work	Rs11,250	Rs11,250
	15-25	Sewing	Rs18,750	Rs0
		Shopping& Marketing	Rs15,000	Rs18,750
		Washing	Rs26,250	Rs0
		Child/Elder Care	Rs48,750	Rs0
		Child Education	Rs26,250	Rs0
		House Cleaning	Rs30,000	Rs0
		Cooking	Rs52,500	Rs0
		Firewood Collection	Rs18,750	Rs18,750
		Fetching Water	Rs22,500	Rs18,750
		Construction Work	Rs15,000	Rs15,000
	26-45	Sewing	Rs22,500	Rs0
		Shopping& Marketing	Rs15,000	Rs22,500
		Washing	Rs26,250	Rs0
		Child/Elder Care	Rs45,000	Rs0
		Child Education	Rs26,250	Rs0
		House Cleaning	Rs30,000	Rs0
		Cooking	Rs63,750	Rs0
		Firewood Collection	Rs18,750	Rs18,750
		Fetching Water	Rs22,500	Rs18,750
		Construction Work	Rs15,000	Rs11,250
	46-60	Sewing	Rs18,750	Rs0
		Shopping& Marketing	Rs15,000	Rs22,500
		Washing	Rs22,500	Rs0
		Child/Elder Care	Rs33,750	Rs0
		Child Education	Rs26,250	Rs0
		House Cleaning	Rs26,250	Rs0
		Cooking	Rs56,250	Rs0
		Firewood Collection	Rs18,750	Rs26,250
		Fetching Water	Rs18,750	Rs18,750
		Construction Work	Rs15,000	Rs18,750
	Above 60	Sewing	Rs15,000	Rs0
		Shopping& Marketing	Rs15,000	Rs22,500
		Washing	Rs18,750	Rs0
		Child/Elder Care	Rs37,500	Rs0
		Child Education	Rs18,750	Rs0
		House Cleaning	Rs22,500	Rs0
		Cooking	Rs48,750	Rs0
		Firewood Collection	Rs15,000	Rs15,000

Opportunity Cost of Household Work: Gender Perspective for Pakistan

Years	Age Group	Household Activities	Opportunity Cost of Female HH Work/Weekly	Opportunity Cost of Male HH Work/Weekly
		Fetching Water	Rs15,000	Rs15,000
		Construction Work	Rs11,250	Rs0

Source: Author's estimation by LFS