



Analysing skills, education and wages in Faisalabad: implications for labour market

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ABSTRACT

This study discusses skills of workers, especially educational attainment and technical and vocational training capacity and its relationship with wages in district Faisalabad. The analysis highlights the need to promote technical and vocational skills and education of labour force through greater investment on training programs so that male and female productivity could be increased. Education and vocational training of female needs to be increased in order to increase labour force participation rate of women in the district. Furthermore, education reforms especially in technical and vocational education are necessary which needs to be closely linked to the requirements of the domestic industry, service and agriculture sector in the district.

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Introduction

Improvement in skills through education and training plays pivotal role in improving the worker's efficiency and productivity which in turn leads to increased demand and higher wages. The research has shown that better and improved skills lead to increased career choices and worker mobility in the labour market. "Without a workforce that is continuously acquiring new and improved skills, it is extremely hard for a country to be competitive in the globalized world"¹ (Khan et al, 2009). The ILO Resolution of 2000, "concerning human resources training and development recognized that education and training are a means to empower people, improve the quality and organization of work, enhance citizens' productivity, raise workers' incomes, improve enterprise competitiveness, and promote job security and social equity and inclusion". Education and professional training is the key to establish the efficiency in wages and increased employment opportunities. Moreover, firms can also benefit from the investment in workforce in terms of increased productivity (Khan et al, 2009).

After the brief discussion about the relationship between skills and wages of the workers, we may say that skills not only enhance labour demand but also establish efficiency wage in labour market. However, it is important to identify what types of skills are needed by the employers? Although there is no credible data on labour demand but we may draw some conclusion regarding labour demand from the supply side sources e.g. Labour Force Survey. This paper intends to provide labour market information of Faisalabad. It discusses the status

of skills and education along with socio-demographic and labour market indicators. It also compares the district's position with national profile by using various indicators of labour market. The analysis will enable policy makers, to design interventions, which are needed to improve the economy and labour market of the industrial district Faisalabad. The Faisalabad is exceptionally diversified in terms of economic activities, with a relatively equal sectoral employment distribution. Furthermore, Faisalabad contributes significantly to Pakistan's economy, well known for its pronounced industrial sector particularly textiles accompanied by a continuously expanding services sector.

Literature review

Human development through improvement in education and vocational training leads economies to attain dynamic growth with high paying jobs creation. It also tends to accelerate investment, economic diversification and technological change and improves competitiveness. The statistics shows that Pakistan is poor in almost all the human resource development activities, particularly; the skill development is the most neglected area (Saima et al, 2011). Pakistan has failed in improving scientific, technological, vocational and technical skills and resultantly productivity levels have been low and his capacity to compete in the world market has been seriously compromised.

The study by Kemal, (2006) clearly brings out the significance of improvement in productivity levels through the development of human resources. The study emphasis that if Pakistan has to diversify its production structure towards high value added and sophisticated industries, she must improve scientific, technological, vocational and technical skills. These will not only help in increasing the competitiveness of Pakistani goods leading a higher growth of output, exports and employment, it will also help in increasing the overseas

¹ The Lucas (1993) explains that the development of human resources is the major reason of differences in living standards among nations in the world (Saima et al, 2007).

migration and remittances. It will also help in attracting the foreign private investment. Since the human resource development activities in Pakistan have been low and skilled and the science and technology personnels are inadequate, the government should enhance the allocations for these sectors and the resources within education and training should be judiciously employed. While the subsidies provided to tertiary education should be reconsidered, more effort should be placed on vocational and technical training and the private sector should be engaged in the training activities. Similarly, Rashid (2005) argues that Pakistan need to move from the production of low technology primary and secondary goods towards high tech industries and products where international growth is concentrated. Otherwise, under the competitive conditions of the global economy, Pakistan will not survive. It can only possible if Pakistan upgrades the low levels of education and skills of its work force.

The recent studies also support the argument that Pakistan needs to upgrade skills level to enhance employment and productivity. Khan et. al (2009) studied selected indicators on skills and productivity in Pakistan. The analysis of labour market indicators reinforced the arguments that Pakistan needs to enhance the skills and education of workforce to break the vicious circle of low productivity and to enter into a virtuous circle of higher productivity. The Pakistan Employment Trends-skills (2007) an official Government publication also emphasised on the improvement of skills and education of workforce of the country, particularly women workforce. The report reviews selected indicators on skills and wages, specifically it analysed maximum education completed by workers, overall enrolment in schools and colleges including technical and vocational training in the country. The review shows that situation of human capital is very poor in Pakistan. Overall education levels of workforce are very low and enrolment levels in different educational programs are still very low even when compared with other neighbouring countries. The report suggests that gross root reforms are needed on emergency basis to bring improvements in literacy and basic education. For this to happen, public resources should be diverted to education and training.

Considering the rapid changes in global economic scenario, the female's role as productive agents in the economy is getting more and more importance. In Pakistan, although females contribute 50% of the population, but in the labour market, their contribution in the economy is negligible. In recent years, the participation of females in labour market has increased, but this increase in participation has no improvements in their economic well being. Still there is significant difference in wages between males and females at workplace. The primary reason is the low level of education, skills and vocational training on the part of women workers (Khan, 2009; Rehana, 2006).

In recent years, measures have been taken to improve the capacity and capability of females to bring gender equality/equity in employment. Credit facilities and quota for females in formal jobs were also announced. As a result the education and health indicators show improvements but achievements to reduce gender disparities in labour market and to improve females' contribution in economic development were not very successful (khan, 2009; PET, 2007, 2008). The rise in female LFPR, with rising unemployment rate and concentration of female workers in agriculture and in informal sector indicates that the female status in the labour market needs improvements.

Gender discrimination results in under-investment and lower returns to females in the labour market (Rehana, 2006). Thus, there is a need to formulate gender sensitive vocational educational and training programs and employment policies to tap this potential.

Key Results of the Labour Force Survey

The district level survey was conducted in 2007-08, therefore, results correspond to 2007-08. The survey indicates that labour force participation rate in the district is 56.5 %. When compared this rate with national level, the result shows that it is well above the national level of 52.5% in 2007-08. This is primarily because of the higher female participation in labour force in district Faisalabad which underlines the fact that more and more women of working age are actively engaged in the labour market.

Other indicators appear to reflect similar patterns, for example, employment to population ratio in Faisalabad is 53.1% which is much higher than the national average at 49.9%. However, like other regions of the country, the male employment to population ratio at 82.5 is very high. The very high employment to population ratio for males in combination with the share of vulnerable employment, suggests a large number of low quality jobs in the district. It appears that the ratio is driven up by the need, especially for men, to work to make a living. Female ratios are at 22.7% virtually four times lower than male ratios during the survey year. Nevertheless, both indicators appear to suggest that on average better employment opportunities exist in Faisalabad than other areas of Pakistan, particularly for women.

An important thing that distinguish Faisalabad labour market from other parts of the country is the sectoral distribution of labour force in the district. Contrary to other parts of the country (where the agricultural sector has the highest labour absorption) the sectoral distribution of employment in Faisalabad in 2007-08 shows relatively equal shares of employment in industry (32.7 %), services (33.0%) and agriculture (34.2%)². However, the improved sectoral distribution of employment like other parts of the country does not benefit men and women equally. Table 1 shows that women are mostly employed/working in agricultural sector, whereas their share in industrial and services sector is very limited.

In line with the relatively less share of agricultural sector in employment creation in Faisalabad, relatively higher share of wage and salaried employment has emerged in the district (40.4%). It exceeds the national average in 2007-08 by 2.9 percentage points. The proportion of women in wage and salaried work is 18.2% which is less than a half of the share for men (46.4 %), however it also exceeds the national average by 4.3 percentage point. Accordingly, the overall share of vulnerable employment is estimated to be 58.2 % below the national average of 61.9 %. Disaggregated by sex, the result shows that 52 % men and 82 % women were lacking decent work. Compared with the national level, the share of vulnerable employment for males is much lower in the district Faisalabad (See Table 1).

In Pakistan, the unemployment rate has been measured by using the relaxed definition. Based on that definition, the unemployment rate in Faisalabad stood at 6.0 % in 2007-08, well above the National unemployment rate of 5.0 % in 2007- This can be attributed to the high district labour force

² See Table 1

participation of young females. The female unemployment rate is at 17.0 % double the national rate for women of 8.7 % in 2007-08. It seems that women face more constraints in securing employment, especially in non agriculture sector, and as mentioned earlier the agriculture sector is comparatively small in Faisalabad. The majority of women are likely to lack the skills required to work in the industry and service sectors, even if they are available for work and less held back by cultural barriers. For men the unemployment rate is at 2.6% much lower than elsewhere in Pakistan. However, as suggested earlier, the low rate seems mostly as an indication of the need to accept any type of work, including low-paying jobs in the informal economy. Work in the informal economy in Faisalabad is with an employment share of 72.0 %, widespread and just below the national estimate of 72.4 % for the year 2007-08. It is again worth to notice that work in the informal economy is more important for female than for male. In 2007-08, 84 % women who worked outside the agriculture sector were employed in informal economy, compared to 70 % men.

Excessive hours of work usually indicate low quality and low productivity jobs. The examination of hours of work indicates that a substantial share of employed labour force is working excessive hours. Over 40 % of the employed labour force is working 50 hours³ or more per week in Faisalabad which is well above the other parts of the country. "The tough economic conditions and prevalence of poverty in the country suggests that the majority of those working excessive hours do so; primarily to ensure some minimum level of income while performing low-productivity work" (Pakistan Employment trends, 2007).

In brief, the review of labour market indicators for Faisalabad indicates that a large part of Faisalabad's labour market has not yet achieved productive employment and decent work despite some improvements in labour market, particularly in terms of gains in gender equality in comparison with the rest of the country.

Table 1. Key indicators of the labour market in Faisalabad (%)

Age (15+)	Male	Female	Total
Labour force participation rate	84.7	27.3	56.5
Employment-to-population ratio	82.5	22.7	53.1
Unemployment rate	2.6	17.0	6.0
Employment by sector			
Share of industry	35.8	21.4	32.7
Share of agriculture	27.2	60.5	34.2
Share of services	37.0	18.1	33.0
Status of Employment			
Share of wage and salaried employees	46.4	18.2	40.4
Share of own account workers	39.3	18.4	34.9
Vulnerable employment and hours of work			
Share of vulnerable employment	51.9	81.7	58.2
Share of employed working 50 hours or more	49.4	7.9	40.6
Share of employment in the informal economy	70.2	84.4	72.0

State of Skills and Education in Faisalabad

Supply of skills

The overall level of education is the only available indicator for skills to date. Therefore, the data of educational level of the labour force is used as an indicator for skills level.⁴ The higher the level of education a person gets, the higher the probability that he will get better employment opportunities (PET, 2007; Khan et al. 2009). Unfortunately in Pakistan, the education levels of the labour force are very low. For instance in 2007-08, only 57 % men and women of working age had got formal education at different levels in the country.

Further if we disaggregate this data, we see that there is huge gap between the educational attainment levels of men and women. The table 2 clearly indicates that the female illiteracy level is almost double when compared with male in 2008. Comparing many other categories of education levels, we see that proportions of several education levels for female labour force are almost half or even less compared to the same proportions for male labour force. Consequently Pakistan falls among those 14 countries in the world where women illiteracy rate is more than 20 percentage points higher than that of men.

Table 2. Educational attainment of the labour force (%)

Labour force 15+	Male	Female	total
Illiterate	36.6	61.9	42.6
Education below primary	3.5	1.5	3.1
Primary but below middle	17.8	14.0	16.9
Middle but below Matric	15.2	4.5	12.7
Matric but below inter	16.9	8.4	14.9
Inter but below degree	5.5	3.9	5.1
Degree & above	4.3	5.7	4.7

Source:

FBS, 2008, Pakistan Labour Force Survey and Pilot Labour Force Survey Faisalabad2007-08.

As a result of low literacy, skills gaps exist and in near future it is unlikely that this gap is removed. Consequently, it will lead to low levels of productivity and income. Furthermore, it also impedes the trainability of the labour force, and therefore reduces the capacity of the labour market to adapt the changes in the short term.

From the literature, it is obvious that it is also important to analyse the skills of the unemployed workers because these are the people which are readily available to meet labour demand. The presence of substantial share of highly educated unemployed people could indicate a lack of sufficient professional and high-level technical jobs. Unemployment ratio also affected by those qualified jobseekers who accept employment below their skill level.

The analysis indicates that graduate unemployment rates in Faisalabad are nearly 2.5 times higher than national level, and a similar gap exists for female graduates. A possible explanation for the latter gap is that formal education may be a poor substitute for the skills and technical education demanded by the industrial base of Faisalabad. Consequently, the high unemployment rates reflect a mismatch between the relatively more educated female labour force (in the formal sense) and the demand for females trained in vocational and technical education. Interestingly, unemployment rates for males in all

³ **More than 49 hours in a week is often considered 'excessive' hours.**

⁴ "A skill is the ability and capacity acquired through deliberate, systematic and sustained effort to smoothly and adaptively carryout complex activities or job functions involving ideas (cognitive skills), things (technical skills), and/or people (interpersonal skills)" (www.businessdictionary.com/definition/skill.html).

categories of education except degree and pre-primary are lower than the national unemployment rates.

Occupations and wages

The analysis of sectoral level skills and education has got much importance because of technological development and new forms of business organisation and production. The “emergence of global markets for products and services, international competition, the emphasis on attracting foreign direct investment, and new environmental challenges have also created a demand for diversified and sectoral relevant skills and knowledge in labour markets” (Khan et al, 2009). Consequently, identification of skill level of work force by occupation is important. Table 3 provides occupational distribution of workers in the district and compares it with the occupational distribution of workers in Pakistan. The two distributions are mostly similar, with the exceptions of agriculture workers (lower), craft and related trade workers (higher) and elementary occupations (lower).

By dividing major groups into three aggregates, ‘highly skilled’ (major groups 1-3), ‘skilled’ (major groups 4-8) and ‘unskilled’ (major group 9),⁵ it can be seen that highly skilled occupations accounted for 19.4 per cent of the employed in 2008 in Faisalabad, which is slightly below national level of 20.6 per cent in 2008. However, in the skilled and unskilled groups differences exist between Faisalabad and national level. The skilled occupational group in Faisalabad accounts for 65.5% of employment, which is 3.7 percentage points higher than the national level. A likely interpretation of this difference may be that the labour market of Faisalabad offers greater employment opportunities for craft and related trade works. Finally, the percentage of unskilled workers in Faisalabad is lower as compared to the national level because the strong industrial sector compels the labour force to acquire skills.

Dissecting the professional category into sub-categories (Appendix table 3), Faisalabad has significantly higher share in “Other” professional and lower share in “Physical, mathematical and engineering science professionals” and “Teaching Professionals”. Looking at the sub-groups of technician category (Appendix table 4) reveals a similar pattern for Faisalabad. A further breakup of this “Technician category into sectoral classification indicates that distribution of shares across sectors is similar for the district and Pakistan except in the categories of manufacturing and Community, social and personal services. The higher share in the former sector offsets the lower share of the latter in Faisalabad.

⁵ “Highly skilled” employees cover legislators, senior officials and managers as well professionals, technicians and associate professionals. “Skilled” workers cover the major occupational groups of clerks, service workers, shop market sales workers, skilled agricultural and fishery workers, craft and related trades workers and plant and machine operators and assemblers. “Unskilled” employees cover those working in elementary occupations.

Table No 3. Distribution of employed by major occupational group (%)

Employed (15+) Occupations	Pakistan			Faisalabad		
	Male	Female	Both sexes	Male	Female	Both sexes
Legislators	16.2	2.0	13.4	15.5	4.6	13.2
Professionals	1.7	0.8	1.6	1.8	1.0	1.6
Technicians	5.2	7.2	5.6	3.8	7.4	4.5
Clerk	2.1	0.2	1.7	1.4	0.1	1.1
Service and sales workers	5.9	0.6	4.8	6.0	0.6	4.8
Agriculture workers	32.6	66.6	39.3	25.3	58.4	32.3
Craft and related trades workers	16.3	11.9	15.4	28.3	21.5	26.9
Plant operators	5.2	0.2	4.2	5.1	0.1	4.1
Elementary Occupation workers	14.8	10.5	13.9	12.7	6.3	11.4
Unclassified workers	0.0	0.0	0.0	0.0	0.0	0.0

Source:

FBS, 2008s, Pakistan Labour Force Survey and Pilot Labour Force Survey Faisalabad2007/2008.

Table No 4. Employment by aggregated major occupational groups (%)

Employed 15+	Pakistan	Faisalabad
Highly skilled (major groups 1-3)	20.6	19.4
Males	23.1	21.1
Females	10.1	12.9
Skilled (major groups 4-7)	61.3	65.1
Males	56.9	61.0
Females	79.3	80.6
Unskilled (major group 8)	18.2	15.5
Males	20.0	12.7
Females	29.3	6.3

Source:

FBS, 2008s, Pakistan Labour Force Survey and Pilot Labour Force Survey Faisalabad2007/2008.

A substantial share of individual’s total incomes is made up by wages in Pakistan. Therefore, the inequality that exists in consumption, healthcare and other indicators of well-being is primarily associated with wages disparities. The analysis of wage rate in Faisalabad indicates that wage rates of highly skilled and skilled workers are relatively low, which indicates abundant supply of labour competing for work. Lower cost of living in Faisalabad seems to be a factor in lower wage rates, and further research on the issue is required.

Further, the review of wage data shows huge wage differential between male and female workers in the district. The female worker women generally earned thirty to forty per cent less than as compared to the men. Factors causing the wage inequalities among gender may be “the increasing size of the informal economy (which generally has lower wages and worse working conditions) that absorbs more and more females as well as the increasing skill differentials between male and female workers. Additional factors affecting the gender wage gap include factors related to human capital and productivity, work experience, health and location of enterprise as well as differences in wage payment systems” (Khan, 2009).

It is well-established argument that wages for individual occupations provide much more interesting and insightful material for analysis than do broad averages of many occupations (ILO, 2007, KILM 16). To some extent, such an analysis can be done using labour force survey data, which

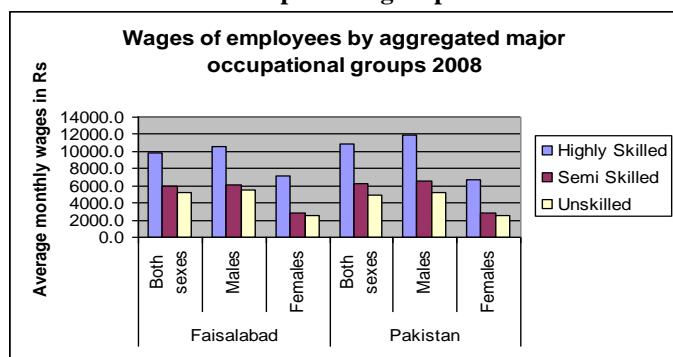
provides only wage information for the status group of employees. It can be seen from Figure 1 that while the average monthly wages for the 3 groups, i.e., highly, semi- and skilled in Faisalabad are roughly similar to the national averages for females, the average monthly wages of highly skilled males is higher in Pakistan in comparison to Faisalabad. Thus the gender wage gap is relatively smaller in Faisalabad as compared to the national level.

In comparing average monthly wages across sub-groups of professionals, (Appendix figure 2) several features, stand out. Average wages of male teaching professionals is much higher in Faisalabad than in Pakistan. In case of life science and health professional, the wages of females in Faisalabad is higher than in Pakistan as well from district males in this profession. In Physical, mathematics and engineering science, and 'other' professional, wages of both males and females are much below national average.

Appendix figure 3 depicts the average monthly wages of the sub-groups within "Technician" group. In all sub-categories, males and females wages in Faisalabad are significantly below the national average. Moreover, the wage levels of females in the district are even lower, compared to the national level. Lastly, appendix figure 4 compares the average monthly wages of sub-groups in the "Craft and related trades" category. The wages of these workers in Faisalabad are comparable to their counterparts in Pakistan, except for females in the 'precision, handicraft, printing and related trades' and "other craft and related trades". In these trade females are at considerable disadvantage with male in the district as well their counterparts nationally.

In conclusion there appears to be circumstantial evidence and negative relationship between occupational shares and average monthly wages. In teaching professions Faisalabad shares are smaller than the national shares. However, the district average wages are higher than the national level. In case of technicians, the Faisalabad share is higher in manufacturing sector, the corresponding wages are lower than the national. Similar is the case for Faisalabad females in the case of crafts and related trades.

Figure No 1. Wages of employees by aggregated major occupational groups



Source:

FBS, 2008s, Pakistan Labour Force Survey and Pilot Labour Force Survey Faisalabad2007/2008.

5. Conclusions and Recommendations

This study analyses selected indicators on skills and wages based on national and district data for 2007-08. The analysis emphasises the need of promoting greater investment in skills and training so that men and women could enhance access to productive and decent work. Pakistan's competitiveness is hampered by poor human capital investment, which enhances

economic growth at national level and increase wages and productivity at individual level (Akram, Padda and Khan 2008). The labour market analysis of Faisalabad also demonstrates the need for a greater investment in education and training and in particular for women. The result shows that educational attainment levels are somewhat better in Faisalabad than other parts of the country. Overall literacy rate is 57.4 percent, 3.2 percentage point higher than national level. Similarly, the female illiteracy rate of the population of 15 years and above stands at 61.9 percent which is 25.3 percent higher than the male rate. However, it is 13 percentage points below the national female illiteracy rate. High unemployment rate (12.3 per cent) of graduates may indicate lack of sufficient professional and high-level technical jobs as well as poor choice of educational fields i.e. too much emphasis on arts and too little on marketable educational fields. The other possible reason might be the relatively high share of industry and agriculture in Faisalabad which probably need not highly educated workers as they are mostly required in high-tech and services sector which are yet not fully prevailed at Faisalabad.

Table 5. Craft and related trades workers by sub-major group (%)

Employed 15+	Pakistan	Faisalabad
Extraction and building trades workers	20.9	15.3
Males	23.7	17.7
Females	5.6	3.7
Metal, machinery and related trades workers	22.2	14.6
Males	26.0	17.5
Females	1.1	0.3
Precision, handicraft, printing and related trades workers	5.8	5.0
Males	6.0	5.1
Females	4.7	4.9
Other craft and related trades workers	51.1	65.0
Males	44.4	59.7
Females	88.6	91.2

Source: FBS, 2008s, Pakistan Labour Force Survey and Pilot Labour Force Survey Faisalabad2007/2008.

The overall employment patterns are more or less same in both Faisalabad and other parts of the country except for women. Female employment in highly skilled and skilled occupations is significantly high in Faisalabad than other parts of the country. Due to various socioeconomic factors, women continue to earn 30 to 40 percent less than men for the same jobs. Unlike national averages, the wages of teaching professional males is higher in Faisalabad than other sub major group professionals. The wages of females working in life sciences and health professions are not only higher than females in other sub-professional groups but also greater than males in the same sub-professional group.

Based on the points raised, it is suggested that: a) improvement in literacy and basic education is very much necessary in Faisalabad. The investments in skills enhancement programs and strategies should be in line with industrial needs. b) To overcome the underutilization of the labour force more women need to be educated and trained in line with the skill requirements of the industrial base of Faisalabad district.

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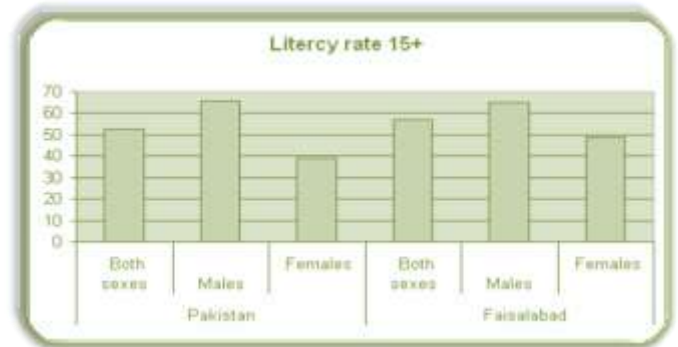
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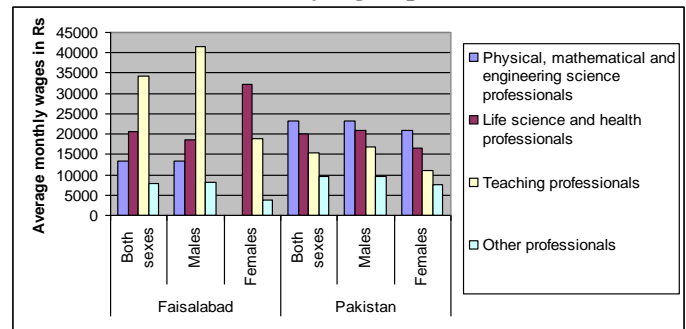
Appendix II

Figure 1. Literacy rates in Faisalabad and Pakistan



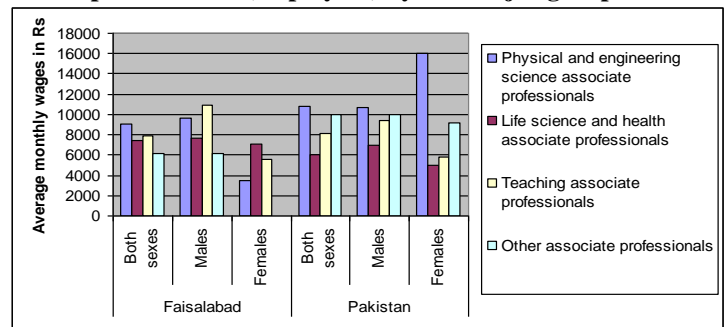
Source: FBS, 2008s, Pakistan Labour Force Survey and Pilot Labour Force Survey Faisalabad2007/2008.

Figure No 2. Wages of professionals (employees) by sub-major group



Source: FBS, 2008s, Pakistan Labour Force Survey and Pilot Labour Force Survey Faisalabad2007/2008.

Figure No 3. Wages of technicians and associate professionals (employees) by sub-major group



Source: FBS, 2008s, Pakistan Labour Force Survey and Pilot Labour Force Survey Faisalabad2007/2008.

Figure No 4. Wages of craft and related trades workers (employees) by sub-major group



Source: FBS, 2008s, Pakistan Labour Force Survey and Pilot Labour Force Survey Faisalabad2007/2008.