Education Management and Employment Trends in Pakistan

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ABSTRACT
This paper is an analysis to find out the relationship between different levels of education and employment. In this paper, more recent data set is used to check the correlation between employment and different levels of education. In recent years, the government of Pakistan has started number of nation-wide surveys such as Pakistan Integrated Household Survey (PIHS) and Household Integrated Economics Survey (HIES) to address the imbalances in the social sector. These surveys provide rich information on the different variables that are useful in calculation of our results. It is argued that different educational levels impart different skills therefore we extend our analysis to examine the addition in employment opportunities associated with extra level of education. How much increase in employment takes place with an extra level of education, such as, Primary, Middle, Matric, Intermediate, Bachelors, Masters and Above. This study is important for two reasons. First, in order to estimate the effect of different levels of education on employment, second the most recent and nationally representative household surveys data is used which provides detailed and the most recent information about education and employment in Pakistan.

JEL Classification : C3; I21;

Keywords : Literacy Rate, Gross Enrolment Rate, Education Management Information System, Net Enrolment Rate.

1) EDUCATION IN PAKISTAN: AN INTRODUCTION
Education plays an important role in human capital formation. It raises the productivity and efficiency of individuals and thus produces skilled manpower that is capable of leading

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the economy towards the path to sustainable economic development. Like many other developing countries, the situation of the education sector in Pakistan is not very encouraging. The low enrolment rates at the primary level, wide disparities between regions and gender, lack of trained teachers, deficiency of proper teaching materials and poor physical infrastructure of schools indicate the poor performance of this sector. The overall literacy rate of 1997-98 census was 43.92 percent; 54.81 percent for males and 32.02 percent for females; 63 percent in urban areas and 33.4 percent in rural areas. These rates are still among the lowest in the world. Due to various measures, taken by the government, in recent years, the enrolment rates have increased considerably. However, the high dropout rate could not be controlled at primary level. Moreover, under utilization of the existing educational infrastructure can be seen through low student institution ratio, (almost 18 students per class per institution) low teacher institution ration (2 teacher per institution) and high student teacher ratio (46 student per teacher).

The extremely low levels of public investment are the major causes of the poor performance of Pakistan’s education sector. Public expenditure on education remained less than 2 percent of GNP before 1984-85 (Sajid A. Mushtaq. 2002). In recent years it has increased to 2.5 percent. In addition, the allocation of government funds is skewed towards higher education so that the benefits of public subsidy on education are largely reaped by the upper income class. Many of the highly educated go abroad either for higher education or in search of better job opportunities. Most of them do not return and cause a large public loss. After mid 1980’s, each government announced special programs for improvement of the education sector. However, due to the political instability, none of these programs could achieve their targets. The Social Action Program was launched in early 1990’s to address the imbalances in the social sector. This program aims to enhance education; to improve school environment by providing trained teachers, teaching aids and quality text books; and to reduce gender and regional disparities. The Phase-I and II of SAP (1993-96) have been completed. The gains from these Phases are still debatable because the rise in enrolment ratio has not been confirmed by the independent sources. In the Phase II government has paid special attention to promote technical and vocational education, expanding higher education in public as well as in the private sector, enhancing computer literacy, promoting scientific education, and improving curriculum for schools and teachers training institutions in addition to promoting primary and secondary education.

Due to low levels of educational attainment and lack of technical and vocational education, Pakistan’s labour market is dominated by less educated and unskilled manpower. Out of 100 employed persons 53.06 per cent are totally illiterate and only 46.94 per cent are literate Household Integrated Economic Survey (HIES), 2001-2. A considerable rise in the number of educational institutions and enrolment after 1980’s is yet to be reflected in Pakistan’s Labour Market. In the following subsections we have discussed some important aspects of education with the most recent facts and figures.

2) ENROLMENT RATES

An important target for government is to increase Pakistan’s primary level gross enrolment rate (GER). The GER, sometimes referred to as the participation rate, is the number of children attending primary school divided by the number of children who ought to be attending. One of the main strategies of the government is to expand public provision of primary education and this measure can be used to assess whether government schools have increased their coverage to population by increasing enrolments faster than the growth in population. Information from the Education Management Information Systems (EMIS) Education Management Information Systems (EMIS) survey of 2002., which conduct biannual school censuses, shows the finding that enrolment rates in publicly provided primary education have declined in recent years. For enrolment in Government schools, it shows the gross enrolment rate declining from 50 to 47 percent.

Net enrolment rates (NERs) are much lower than GERs. The NER refers to the number of students enrolled in primary school of primary school age divided by the number of children in the age group for that level of education. In other words, for Pakistan, the primary NER is the number of children aged 5 to 9 years attending primary level divided by the number of children aged 5 to 9 years. Net enrolment is highest in Punjab and lowest.
in Balochistan. However, differences between provinces are on the whole noticeable. The largest difference is between urban and rural areas. Girls also have a considerably lower enrollment rate than boys, although the difference is markedly larger in rural areas than in urban areas. Sex differences are largest in rural NWFP and Balochistan. The reason for the large difference between the GER and the NER is the significant number of over-age children who attend primary school. Whilst only 38 per cent of 5 year old boys attend primary school, some 57 per cent of 11 year olds are in primary school, although they are supposed to have left primary school by that age. At every age, a higher percentage of girls than boys are not attending school.

3) EXPENDITURE ON EDUCATION

Households spend, on average, Rupees 1,443 per year on each primary school student. Household Integrated Economic Survey (HIES) 2001-2. Urban households spend more than twice as much as rural households on each primary school student. Those students attending primary schools spend, on average, four times as much as those attending government primary schools. The increase in the private sector share of enrolments, despite these large differences in the costs, suggests that parents perceive a large difference in quality between the government and private schools.

4) EARLY LEAVERS AND NON-ATTENDANCE

Drop-out from primary schools is a problem. Looking at the 10-18 year old age group that have attended primary school at some point in the past, some 15 per cent left before completing primary school in 2001-02. A larger proportion drops out in rural areas than in urban areas. Girls are slightly more likely to leave earlier than boys in rural areas; and vice versa in urban areas. These measures have remained largely unchanged over time, although there has been a decline in dropping out by girls in rural areas. About 13 percent of children who have enrolled in primary school drop out before completing primary (class 5). However, the largest drop out is at the end of primary, with 28 percent dropping out before reaching the end of class six. Most of the dropping out will be children failing to make the transition from primary to middle school. Once enrolled, boys and girls have similar drop-out rates up to the end of primary, although girls are considerably less likely to make the transition to middle school, particularly in rural areas. There is a strong relationship between dropping out and household income.

5) LEVEL OF EDUCATION AND EMPLOYMENT

The following table shows different levels of educated population with their employment in the same category in Pakistan.

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Employed</th>
<th>Literate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Primary</td>
<td>5083508</td>
<td>7222791</td>
</tr>
<tr>
<td>Primary</td>
<td>9879813</td>
<td>11498840</td>
</tr>
<tr>
<td>Middle</td>
<td>6031281</td>
<td>7542165</td>
</tr>
<tr>
<td>Matric</td>
<td>6778011</td>
<td>7003213</td>
</tr>
<tr>
<td>Intermediate</td>
<td>2807418</td>
<td>2931958</td>
</tr>
<tr>
<td>Graduation</td>
<td>2168389</td>
<td>2217938</td>
</tr>
<tr>
<td>Masters and Above</td>
<td>890332</td>
<td>921463</td>
</tr>
<tr>
<td>Others</td>
<td>64621</td>
<td>80362</td>
</tr>
<tr>
<td>Total</td>
<td>33703373</td>
<td>39418730</td>
</tr>
</tbody>
</table>

Sources: Pakistan Integrated Household Survey (PIHS) 2001-2 and Household Integrated Economic Survey (HIES) 2001-2

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It has been argued in the literature that different levels of education impart different skills and hence affect employment differently. Therefore, it is misleading to assume a uniform rate of return for all educational levels. We have divided the educational level according to the school system of Pakistan. We have divided educational levels in 7 categories according to the school system of Pakistan along with a other category for non-formal literates and vocational skills holders. The primary education consists of 5 years of schooling; middle requires 3 more years; and by completing 2 more years of schooling after middle, and individual obtains a secondary school certificate i.e. Matric. After 10 years of schooling, students have a choice between technical and formal education. Technical education can be obtained from technical institutions which award diploma after 3 years of education. After the completion of intermediate certificate, students can enter either in the professional degree or can pursue their studies in a university for graduation and then masters for two more years. At this stage the graduates of professional and non-professional colleges complete 16 years of education. They can now proceed to M. Phil, or Ph. D. degrees.

In addition to different levels of education and experience, various other factors, such as quality of schooling, technical training have significant impact on employment. It has been argued that because of the market-oriented approach adopted by the private schools, the graduates of these schools are more employed as compared to the graduates of public schools. The quality of education has a positive, significant and substantial impact on cognitive achievement and hence on post school productivity, measured by earnings. These studies observed higher earnings and employment rate of graduates of high quality school than those who attended a low quality school. A recent study by Zafar Mueen Naasir (1999), Pakistan Institute of Development Economics found considerably higher earnings and employment of private school graduates. These schools however charge higher fees. Estimates of average annual expenditure per pupil in both government and private schools indicates that the total cost of primary level in rural areas is Rs. 437(Rs355 for government schools and Rs1252 for private schools), compared with Rs2038 in urban areas (Rs. 1315 for government school and Rs. 3478 for private schools). This means that the cost of primary schooling is almost three times that of public schools in urban areas and nearly four times in rural areas. The differences in cost of schooling also reflect the degree of quality differentials in public and private schools, and between urban and rural schools. A relatively better provision of school facilities and quality of education in private schools is causing a continuous rise in school enrolment in urban areas. On the basis of this information one can identify workers according to the school they attended and therefore examine the effect of type of school on individual employment.

The existence of vast gender gap in human capital accumulation is evidenced by various studies in Pakistan. The PIHS and HIES Pakistan Integrated Household Survey (PIHS) 2001-2 and Household Integrated Economic Survey (HIES) 2001-2, report vast gender disparities in literacy and enrolment rates. The literacy rate among females is half that of males’ literacy rate for whole Pakistan. This difference has increased to three-folds for rural areas. The gender difference is however smaller for the gross enrolment rate at primary level.

The regional imbalances in the provision of limited available social services are more pronounced in Pakistan. Rural areas are not only underdeveloped in terms of physical infrastructure but also neglected in gaining basic amenities. Researchers calculated the disaggregated human development index for Pakistan and its provinces. They noted that nearly 56 percent of population is deprived of basic amenities of life in Pakistan; 58 percent in rural areas and 48 percent in urban areas.

The four provinces of Pakistan exhibit different characteristics in terms of

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6) FINDINGS AND CONCLUSIONS

The final results of all our analysis of data are shown in the following summarized table. The highly significance of different educational levels indicated the role of education for the employment. An additional level of education raises individual employment percentage.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Literate</th>
<th>Employed</th>
<th>% Employed</th>
<th>% Un-Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Primary</td>
<td>7222791</td>
<td>5083508</td>
<td>70.38</td>
<td>29.62</td>
</tr>
<tr>
<td>Primary</td>
<td>11498840</td>
<td>9879813</td>
<td>85.92</td>
<td>14.08</td>
</tr>
<tr>
<td>Middle</td>
<td>7542165</td>
<td>6031281</td>
<td>79.97</td>
<td>20.03</td>
</tr>
<tr>
<td>Metric</td>
<td>7003213</td>
<td>6778011</td>
<td>96.78</td>
<td>3.22</td>
</tr>
<tr>
<td>Intermediate</td>
<td>2931958</td>
<td>2807418</td>
<td>95.75</td>
<td>4.25</td>
</tr>
<tr>
<td>Graduation</td>
<td>2217938</td>
<td>2168389</td>
<td>97.77</td>
<td>2.23</td>
</tr>
<tr>
<td>Masters &amp; Above</td>
<td>921463</td>
<td>890332</td>
<td>96.62</td>
<td>3.38</td>
</tr>
<tr>
<td>Other</td>
<td>80362</td>
<td>64621</td>
<td>80.41</td>
<td>19.59</td>
</tr>
</tbody>
</table>

Source: The Result is developed by the Authors

One can note higher returns of education for higher educational levels from this table. For example, the returns to masters and above are more than four-times higher than that of primary school level. This paper investigates the role of different levels of education on getting employment.

* Researchers calculated the disaggregated human development index for Pakistan and its provinces. They noted that nearly 56 percent of population is deprived of basic amenities of life in Pakistan; 58 percent in rural areas and 48 percent in urban areas.

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opportunities. The results of this paper show the significance of different levels of education for employment.

The analysis confirms the positive role of education as each level of education brings more share in the job market. The higher employment rates are found to be associated with higher levels of education. The returns are higher for those who have all levels of education as compared to those who have only one or two levels of education.

A positive and significant association between employment and higher level of education implies the urgent need of such institutions that can educate individuals on modern lines and with higher education in order to cope with the rapidly changing technology. And it has been proved that three or more levels of education play an important role in getting an employment.

More emphasis should be placed on market oriented approach in education. The effectiveness of private school system is a ready example for developing such approach. This requires the overhauling of public school system and teacher training. This requires not only an increase in the budgetary allocation for education but also its optimal utilization. In addition, special measures are needed to narrow down the gender and regional disparity.

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