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Access to Education and Employment: Implications for Poverty

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Abstract

The paper explores the linkages between 'Education' and 'Poverty' and the possibility of poverty reduction through better employment opportunities. The paper proceeds with the understanding that poverty acts as both cause and effect of a lack of education. In particular, the paper examines whether education is contributing to poverty reduction among rural households in Bangladesh, based on a school level survey as well as household survey conducted under the Programme for Research on Chronic Poverty (PRCPB) Phase-II. The study addresses the question regarding the access of poor and non-poor to primary and secondary levels of education by looking at the impact of poverty on the enrolment rates. Links between poverty and the rate of SSC completion and the success rate of SSC are also analyzed. The empirical evidence suggests high differentials between the poor and non-poor groups, the variations increasing along the continuum of education levels from primary to secondary to SSC completion. Reduction of such differential requires an understanding of where previous policies have failed in closing these gaps, as well as, a policy approach which will ensure that stipend and other support programmes for education give priority to poorer children. The paper has also addressed questions regarding the quality of education received by poor and non-poor (mainly based on qualitative assessment of children's performance, repetition of classes, and their SSC grades), and the links between quality of school attended and poverty.

An analysis of the state of unemployment and the extent of underemployment among the educated youth from various poverty groups has been carried out. The findings indicate that the level of education is positively associated with the percentage of labour force in salaried employment. Hence, it is imperative to take initiatives towards job creation and skill development of those who have education below SSC level.

Section 1: Introduction

Contribution of education to the social and economic development of societies has been established beyond doubt. In addition, the search for strategies for poverty reduction has identified education and literacy as important instruments for improving the conditions of the poor. Education helps poverty alleviation through its impact on productivity of labour and through other channels of social benefit and therefore education is an important development goal of nations (UNDP & GoB 2005, WB 2005).

The objective of the present study is to examine whether education is providing a prospect of poverty alleviation among rural households of Bangladesh. Education can be an effective means for poverty alleviation if the following conditions are fulfilled: (a) children from poorer households have access to education and (b) educated youth have access to employment. The second will in turn depend on the level of education completed. These questions will be addressed in the present study.

1.1 Scope of the study and organization of the paper

Poverty alleviating impact of education will vary according to the level of education. Productivity enhancing effect of education and prospect of employment/unemployment is to likely to differ between primary and secondary education. Poverty related differential in access to education may be different for these two levels of education. Moreover, enrolment at secondary level does not necessarily lead to completion of the particular level. Completion of secondary education and appearing at SSC level therefore needs separate attention.

Quality of education may be an equally important factor behind poverty alleviation. Quality of education is difficult to measure. Indirect indicators are usually used for such assessment.

In this context, primary education received attention in past research. Impact of poverty on primary enrolment and achievement of learning competence has been intensively examined by CAMPE (2001). Therefore the present analysis will focus on secondary level, both in the context of enrolment and quality of schools. However, an understanding of access to secondary education and its role in poverty reduction requires a comparison with primary education. The analysis of the present paper focuses on such comparison.

The paper is organized as follows:

- The rest of this Chapter gives some details of data used in the study.

- Section 2 examines enrolment rates disaggregated into primary and secondary age groups and poverty groups. This section also examines the links between poverty and the rate of SSC completion and the success rate of SSC.[1]
- Section 3 uses multiple regression to analyze the determinants of enrolment and completion of SSC.
- Section 4 looks at some additional indicators of students' progress in education, and reasons behind lack of good performance. Qualitative assessment, repeating classes, SSC grades etc. have been used as indicators.[2]
- Section 5 will examine the link between quality of school attended and poverty.
- Section 6 analyzes the unemployment situation among educated youth from various poverty groups and the implications for education's role in poverty alleviation. The objective of the analysis of status of employment, unemployment and underemployment is to probe into how much education can help cross the poverty threshold.

1.2 Notes on Data

Data used in the paper comes from the surveys conducted for the CP study. The household survey questionnaire included questions to address the relevant issues.[3] In addition, a school level survey was conducted.

The school level survey covered the schools attended by the majority of the students from the villages selected for the study. The objective of the school survey was to look at the quality of schools and its links with poverty status of students. We have chosen about 4-5 schools in each area. Since the major focus of the study is to look at secondary education and its comparison with primary education, 2 or 3 high schools were chosen, along with 1-2 primary schools. In total 173 high schools and 123 primary schools have been covered.

Both primary and secondary education in Bangladesh have several streams, e.g., NGO schools, 'Madrassah', and government and private (with government support) schools under government boards. NGO schools are mostly working at primary level and therefore were not included in the survey which has a major focus on secondary education. Moreover, a series of studies on quality of primary education (CAMPE 2001) has been conducted which have examined the role of NGO schools. Schools of religious streams cannot be directly compared with other schools because the two streams pursue very different objectives of learning and quality of 'Madrassah' education and

[1] This paper excludes tertiary education because very small per cent of rural population are engaged in this level and also because research on tertiary education will involve a different set of specific issues.
[2] Quality of secondary education includes other indicators as well but this paper is limiting itself to student outcome to link this with poverty situation.
[3] The details of sampling methods and other methodological issues related to household survey has been discussed in the main report (Ali 2005).

its impact in comparison to other streams need separate research. So this was kept outside the scope of the present study and only the major stream of schools were covered.

Section 2: Education, Youth Poverty and Employment: Possible Linkages

Role of interruption of education either through a deliberate choice or unintentionally due to shocks can be an important factor behind youth poverty. This in turn may act as a mechanism of intergenerational intensification of poverty and chronicity of poverty. This has beeen highlighted by a number of studies (Moore 2005, Moore 2004). Youth poverty and its links with poverty among adult will be shaped through the labour market processes. Education can make direct contributions to poverty alleviation through a positive impact on prospects of employment and better type/status of employment (Islam 2004). Various studies have shown that certain types of employment accentuate poverty. Poverty incidence is highest among casual labour category, especially in agriculture (WB 1998, 2002). In contrast regular salaried employment can lead to lower poverty (Rahman 2004). Therefore, one should ask whether education can reduce unemployment (or raise the scope for employment) and provide more 'regular jobs'.

We shall use a simple flow diagram to understand these linkages.

Figure 1
Interrelationship between education, youth poverty and adult poverty

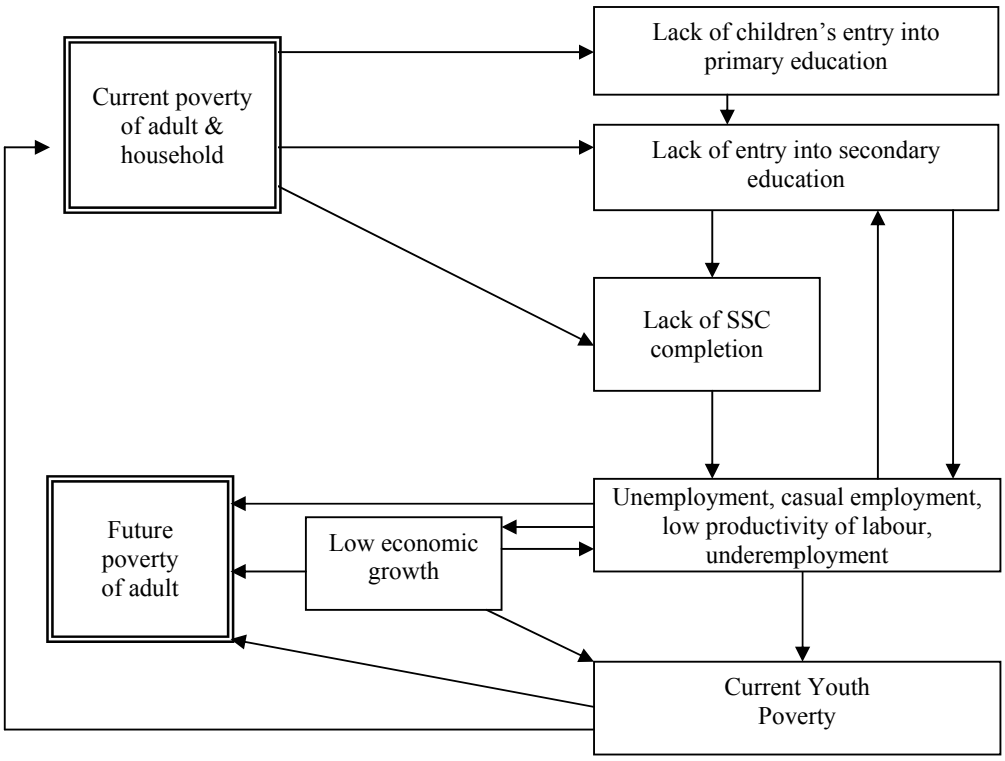

Figure 1 emphasizes the point that parental poverty can lead to youth poverty through a lack of investment on education. This may, along with other factors, result in school dropouts at various levels. The above diagram implicitly assumes that completion of SSC level education can offer the prospect of better employment opportunities for youth labour force and help break this cycle. In fact, this hypothesis will be examined through empirical data. However, a cross sectional data set on current employment can provide only a part of the evidence, whether better opportunity is being offered for the current supply of educated youth. This data cannot provide sufficient evidence of whether this reduces poverty in post-youth phases of life or among adults who invested in education of family's children and younger persons. Such evidence may come only from longitudinal surveys.

At this point some explanation is required for the choice of cut off levels of education in the above diagram. Choice of primary and secondary levels are somewhat obvious. SSC being chosen as the 'ultimate' goal requires defense. It has been done not only because of an actual 'certificate", but the very fact that one sits in the examination means that some basic competencies has been achieved. Here it is being proposed as a hypothesis that this level makes a difference.[4] Empirical evidence of difference in employment prospects for various levels of education will provide rationale for the proposed cut-off.

In fact, the role of education in enhancing labour productivity and in economic growth has been recognized by the extensive development in new growth theory.[5] Impact of this process on household poverty and human poverty has also received attention in both theoretical and empirical literature. However, the question of lack of absorption of educated labour force and its impact through three separate streams, i.e. youth poverty, household poverty and second round impact on education, has not been adequately focused in empirical research.

Section 3: Access to Education and Impact of Household Poverty

3.1 Indicators of access to education

Enrolment at schools and years of schooling are commonly used as indicators of children's access to education. However, it is being increasingly recognized that learning may not be adequately captured by years of schooling. In view of these problems, success at primary level is being directly measured through assessment of actual competence. Such research is usually time and resource intensive. Recently CAMPE (2001) has undertaken such study on primary completed children. The present study will, therefore, put more emphasis on the secondary level.

[4] The hypothesis emerged from author's participation in FGD sessions with boys and girls who dropped out during VI to IX level of school and those who crossed SSC or higher level. The first group lacked employment, confidence and information to try for jobs.
[5] For example Barro, R.J,. (1991), Barros, A.R. (1993), Mahajan (2005).

At the secondary level, direct assessment of learning by outside researchers is not quite a practical proposition. Moreover, at the end of 10 years of schooling, which is the terminal year of secondary school, a public examination is centrally conducted (this is known as 'secondary school certificate' examination). 'Whether someone sits for SSC' and the 'grades obtained in SSC' can, therefore, be yardsticks of success at the secondary level. This examination gives one eligibility for entry into class III jobs which is the first step in government white collar job. After obtaining SSC, people could be selected as primary school teacher (although, recently the qualification for this job has been raised). In the present study, appearance at SSC examination and the grades obtained will be used as indicators of success at secondary level.

A major objective of the present analysis is to examine the links between success (or otherwise) in education and poverty situation. This will be done by

- Δ computing the indicators for various poverty groups.
- Δ through multiple regression on the major indicators and using poverty status and asset ownership as explanatory variables.
- Δ through parents' opinion about the causes of children's inadequate performance

Data on repeating classes and a subjective indicator in terms of parents opinion about children's schooling performance have also been obtained. The relationship between these indicators and poverty will provide additional insights on whether poor households can improve their situation through school education.

3.2 Enrolment rates

The enrolment rates for various age groups will be used to make comparisons of the extent of school enrolment among the poverty based groups. According to convention, primary enrolment rates are calculated for 6 years to 10 years cut off points. Bangladeshi children often begin schooling later than 6 years age. Therefore rates of school enrolment will be presented for 8-12 and 13-18 years aged children.[6]

Table 3.2.1 presents data on the enrolment rates for five poverty based groups. The following observations can be made on the basis of these data.

- ▲ Primary enrolment rate is inversely related to extent of poverty. The rates are 65 and 77 per cent among boys and girls of extreme poor group while these rates are 80 and 90 per

[6] Alternative set of enrolments rates (er) for 6-10 age cut off has also been presented for the purpose of comparison with 8-12 group. In fact, er was calculated for each year of age beginning from 6 years. er has risen continuously from 6 years to 9 years. Therefore, use of 8-12 years group is logical.

cent among the moderate poor. In the three non-poor groups, these rates are above 90 per cent.

- Similar picture emerges for enrolment rates among secondary school age children. However, the rates are much lower than primary enrolment rates as expected. The difference between poor and non-poor boys and girls are larger (in terms of per cent difference in enrolment rate) for secondary compared to primary enrolment rates. In the age group 13-17, among boys in EP and rich groups 27 and 76 per cent are in school, for girls the percentages are 44 and 71 respectively.
- One must highlight the gender difference in enrolment rates. A significant achievement of Bangladesh is the rapid increase of female school enrolment. This is demonstrated by the present data set. Female enrolment rate is higher for both primary and secondary age group. The conclusion holds for the poorest households as well.

3.3 Rates of SSC completion

However, enrolment is not a sufficient indicator of success in educational achievement and next we look at the other indicators. We look at completion of secondary education through appearing in SSC. These data are presented in table 3.3.1. Here the picture is not as bright as in the case of enrolment.

- First, the rate of SSC appearance is much smaller than rate of secondary enrolment. Only 23 and 13 per cent of boys and girls among the relevant age groups have appeared in SSC. Here the percentage is much lower among girls compared to boys. This stands in contrast to the higher rate of secondary enrolment among girls compared to boys. In addition, the difference between the poor and non-poor are very large in this respect. The achievement of poor boys and girls in terms of this indicator is, in fact, very low in the absolute sense. Therefore we shall examine why the rate of such drop out is higher among girls, whereas, their enrolment in secondary level is higher than boys.
- In addition to sitting for SSC examination, success rate in SSC among various poverty-sex groups have been examined. Here the picture is different. Success rate does not show systematic variation with poverty (Table 3.3.2). Gender difference is also less pronounced. The scenario of a combination of low and poverty differentiated rate of appearance at SSC and not so unequal pass rate needs some explanation. This is possibly a reflection of the fact that those who do not have high probability of success, drop out before the level of SSC.

The first observation implies that although girls study at the secondary schools, they are not adequately prepared for SSC examination. Another factor discouraging SSC appearance is that sitting for SSC involves substantial cost. Such cost include the examination fees, travel to test centres etc and the cost of private tuition. Parents may not be willing to make this investment for daughters who are likely to get married soon and leave the parents' home as observed in the context of other South Asian countries, e.g., for Pakistan (Aslam and Kingdon 2005). In contrast, sons are more likely to live with parents and therefore will bring a return to the investment on education. More intensive surveys on expenditure of each child's education and total household expenditure can throw light on the validity of this hypothesis.[7]

One must also ask why stipends cannot ensure poor girls' SSC completion. Three sets of factors are working here.

- Stipends are small amounts and are given only after girls are regularly attending school. Many families reported that they cannot afford the initial investment in the form of school books, suitable clothing etc.
- Stipends do not ensure adequate quality of teaching. It may rather adversely affect the quality because it makes demands on teachers' time. Moreover girls without adequate competence are promoted to next higher classes so that they can avail stipends. Such problems are observed at least in some schools as reported by teachers during informal discussion sessions.
- Teachers also reported that deteriorating law and order, local 'maastans' stand against girls regular school attendance. The number of girls actually harrassed may not be large. But even a small number of incidents may work as a discouraging factor. Because of social stigma, this is not usually reported by parents who participated in discussions/interviews (Table 3.5.5).

3.4 Multiple regression results: Factors affecting school enrolment and secondary completion

So far we have shown the gross difference of access to education among the poverty groups. For policy purposes, a multiple regression can provide more insights on the impact of relevant variables and can identify the net impact of poverty. We have estimated separate logistic regression equations for explaining 'whether someone is currently studying' for 8-12 years, and 13 to 17 years (Table 3.4.1, 3.4.2).

In the primary school equation, household's poverty status has the highest negative coefficient. This impact is noteworthy even after controlling for a number of poverty related variables: female headedness, landownership, head's and spouse's education and family size. Moreover, this

[7] This is expected to be included in future rounds of surveys.

coefficient is higher than the coefficient of 'poor household dummy' in the second equation (13-17 years). This implies that the poverty induced exclusion from education occurs more at the primary education level.

The equations provide evidence of strong intergenerational impact of education: household head's and spouses education have significant positive coefficients in both equations. In this context an interesting finding needs highlighting: household head's wife's education has a lager coefficient compared to head's education for the 8-12 age equation.

Landownership does not have an independent impact on school enrolment. Larger number of school age children in a family implies a lower probability of enrolment. Since most families are of nuclear form, this implies a negative impact of higher fertility on education.

Girl children have higher probability of enrolment at both levels.

Among the village level variables, electricity in the village and distance of bus stop have significant positive and negative coefficients respectively in the second equation (for 13-17 year old), whereas in the first equation, these variables have insignificant coefficients. Distance of primary school has a significant negative impact on primary enrolment. Other village level variables have insignificant coefficients. Distance of high school is insignificant in both equations. It appears that bus communication can counteract the distance of school and has a significant positive impact.

The equation on the 'probability of having SSC level education' for the relevant age group has very similar results as the enrolment equations (Table 3.4.3). As in the other equations, 'poverty' has the largest significant coefficient. Positive impact has been made by landownership of household and education of head & his wife. In the previous equations, girls had an advantage over boys, which is insignificant in this equation (and the sign has been reversed). Distance of bus stop has a weekly significant negative impact. Contrary to expectation, the coefficient of distance of police station is positive and we do not have an apparent explanation.

One possible reason behind children not being in school is the possibility of their earning. Village wage rate has been included as an explanator reflecting this possibility. This variable is positive, in contrast to the hypothesis and not at all significant for the primary school age equation. Its coefficient is negative in the second equation (13-17 years), but not significant. This implies that current earnings prospect in agricultural wage labour market is not an important reason behind rural children remaining outside the education system. In the following sections, information on employment will be examined to provide more insights on the role of education in poverty reduction. But, on the whole, the evidence is that a significant percentage of poor households do not find sufficient incentive for sending children of both primary and secondary age group to school.

3.5 Other indicators of children's school performance

Data on the link between poverty status and parent's/guardian's assessment of school performance of children do not give dramatic differences, although some of the indicators reveal poorer performance of poor children.

The difference is most prominent in the case of 'general assessment'. As shown in Table 3.5.1, 35 and 28 per cent of EP and MP children are in good category while the percentages are 58 and 60 among upper middle and highest rank households.

Difference between rich and poor groups are much smaller in the case of repeating years by students (Table 3.5.2).

When it comes to examination grades in SSC, the averages of groups are very close (Table 3.5.3). It is likely that only the better students from each group sit in the examinations. There may be some brilliant students among the poorest groups (and some cases of success through unfair means).

Follow up questions were asked on the reasons behind not so good performance of children (Table 3.5.4, 3.5.5, 2.5.6). Two reasons predominate:

Financial problems and

Not good in studies.

On the basis of households' assessments of reasons for poor quality of school, the most important factor is that teachers' performance is poor (Table 3.5.7). Either they do not spend the entire school time at school or pay inadequate attention to school teaching. In the pre coded question, the physical facilities and lack of books, stipend etc. have been listed. But few responded 'yes' to those.

Section 4: Poverty and Quality of School

Data on school characteristics will be examined in this section. The objective is examine whether these characteristics can be linked with the extent of poor students in a school. The hypothesis that we intend to examine is whether the schools with higher percentage of poor students are of poorer quality. School characteristics that are used in this context include:

Student teacher ratio

Educational qualification of teachers

Physical facilities at school

Subjective assessment

In the following analyses, the students in poor category expressed as percentage of students (PS percentage) in the school have been classified into four groups. We have computed the value of the indicators[8] separately for primary and high schools.

Table 4.1 shows the average education of three senior most teachers. There is no systematic relationship between poverty of students and average education of teachers.

Among the physical facilities, we examined toilet facilities, separate classrooms for each class and sufficiency of benches/chairs etc. Almost all schools have toilets (except 3 high schools, Table 4.2). There is a negative relationship between sufficiency of benches etc. and PS percentage. There is no such relationship for primary schools.

Table 4.3 shows whether separate classrooms are available. There is a negative relationship between PS percentage and sufficiency of classrooms. However, it should be mentioned that the shortage is substantial only in the case of primary schools. In the case of high schools, only 4% schools do not have rooms for each class.

Student-teacher ratio is shown in Table 4.4. Here we find the reverse of what is expected in the case of primary schools. Smaller percentage of poor students (PS percentage) is associated with more students per teacher. In the high schools, larger per cent of poor students is associated with larger number of student per teacher.

At the end, we present data on overall assessment about quality of school[9] and its pattern for schools with varying per cent of poor students (Table 4.5). Here again, there is no systematic pattern for the primary school. For high schools, we see that schools with a larger PS percentage are low quality schools.

To summarize, the schools attended by larger percentage of poor students is not systematically linked to lack of physical facilities. Still, the schools attended mainly by poor students are overall poor performers, in terms of subjective assessment.

Even in terms of overall school quality, while it is observed that schools with higher percentage of poor are doing worse, the difference between various extent of poor student and school quality is not quite striking.

The often discussed drastic differences in the quality of school attended by poor and non-poor students may be valid for the urban areas and in terms of urban rural differences and this may be the subject of future research.

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[8] Data on number of students in various poverty status in three classes as reported by head teacher have been used to represent the ratio of poor to total student for the school.

[9] The quality assessment used here was obtained from the respondent teacher. In addition, the interviewer was also asked to form a judgment about school quality. These two usually matched. No school was assessed poor by one and very good by another. Only a few average ones shifted to good according to the teacher.

Section 5: Education, and Prospects of Employment

Major poverty reducing role of education is indirect and works through families' means of earning a livelihood. Various dimensions of employment provides the most effective insights into the success and failure of livelihood strategies of households.

The concept of (open) unemployment is more relevant for formal economies and may not provide sufficient information about the complex dynamics of choice of various types of work. In the densely populated countries with informal labour market, 'underemployment' is a more relevant concept. This concept takes into account the lack of adequate hours of work.

In addition to the quantification of employment, the type/status of employment provides an indication of the integration of works with the more dynamic components within the rural economic sphere. Status of employment reflects both economic and social aspects of individual's and his families prospects of mobility as discussed in Section 2. The analysis of employment, un and underemployment, status of employment can therefore play a central role in the understanding of poverty processes and empirical data on these aspects will be examined in this section.[10]

The duration and extent of unemployment is likely to be associated with the level of education and family characteristics. The extent of unemployment among primary and secondary educated persons disaggregated by poverty status will be estimated in terms of suitable indices. The expectations in the labour market for school educated youth will also receive attention.

The analysis focuses on youth population aged 15 to 25 years and a comparison of this group with older (26 to 60 years) labour force. Experience of employment/unemployment during young age is most likely to reflect the impact of education. This experience is also likely to shape the future expectations about employment prospects.

The following analysis are based on two indicators:

(a) unemployment (no income earning work and not a student or housewife)

(b) underemployment based on hours worked during last one week (less than 35 hours)

5.1 Unemployment

Table 5.1.1 provides data on UE rate disaggregated by education. Unemployment increases with the level of education. The rise of unemployment rate is steepest for the group with 6-9 years of education. The rate is 16 per cent compared to 6 per cent among those with six to nine and one to five years' education respectrively. The large jump in unemployment rate has been observed for both

[10] More detailed data collection on time use in various activities and income sources for each individual will be attempted in indepth surveys to be conducted.

male and female labour force. This indicates that there is a lack of opportunity of employment suitable for SSC educated persons.

Unemployment rates are higher among nonpoor groups compared to the poor groups (Table 5.1.2). This actually means that poorer persons cannot afford to remain unemployed. As a result they accept any job and may not wait for better salary. This is also borne out by responses to a hypothetical question asked to the unemployed: 'how much wage/salary per month you expect if you are offered a job'. The responses presented in Table 5.1.4 shows that salary expectations are lower among the poorer job aspirants.

Unemployment rate is much higher among youth labour force (aged 15-25 years). The lower UE rare among adult group reflects that at higher ages one accepts whatever type of employment is available. Higher UE rate among lower age group implies wastage of labour resource caused through youth UE.

Women's situation is worse than men in terms of unemployment. Among the female labour force, 33 per cent are unemployed (44 per cent in the case of non-poor households and 26 per cent among poor households). Among the male and female youth, unemployment rates are 13 per cent and 51 per cent respectively (Table 5.1.3). Among women with SSC education, 53 per cent are unemployed while the rates are slightly lower among primary educated female labour force (42 per cent). Unemployment among male youth also differs by education levels, 31 per cent among SSC educated and 8 per cent among primary educated.

The above description make it clear that secondary educated new entrants to labour force wait for taking up regular jobs. While they are more successful in this respect compared to primary educated ones, a significant percentage also remain unemployed. The situation is much worse among female labour force participants.

High unemployment rate among girls with secondary education and specifically SSC level education will act as a discouraging factor for the future job aspirant women. This will be a discouraging factor for women who want to sit in SSC examination and particularly for those who wish to complete education with a view to seeking employment.

5.2 Underemployment

In addition to unemployment (UE), one must examine the extent of underemployment (UDE) which is a better indicator of lack of availability of employment opportunity, especially in informal and/or casual labour markets. Although there are various methods of measurement of underemployment (Mehra 1966, Rudra 1973), 35 hours cut off point has been used in this paper to define UDE.

As shown in Table 5.2.1, UDE rate is higher among poor compared to non-poor labour force. The rates are 25 and 28 per cent respectively. The difference in UDE rate is larger among women compared to men. UDE rates among the poor and non-poor are close and this indicates that the underutilization of labour is not voluntary.

Table 5.2.2 examines the differences of UDE rate among education groups. A gradual decline of UDE rate can be observed as one moves to more educated groups. Most visible difference is between SSC+ groups compared to those with 6 to 9 years of education. The difference is likely to have originated from the type of employment in which the SSC educated and others are engaged. A larger percentage of labour force with SSC are engaged as regular salaried employees where underemployment is less likely to occur. UDE rate among younger and older labour force do not show large difference as in the case of UE rate (Table 5.2.3)

It may be highlighted that UDE rate is much higher among female compared male labour force. Such difference has been observed in the case of unemployment rate as well. Female underemployment should however be interpreted cautiously. Many women engaged in heavy domestic work may not be willing to take up long hours of employment. Definitional issues related to female underemployment and its links with domestic work has not yet been satisfactorily resolved (ILO 2002, Rahman 2005). In general, it should be highlighted that high un and underemployment rate among 6-9 grade educated youth will influence the future expectations of employment among secondary educated persons and this will have adverse implications for enrolment and educational achievement of youth's own children and other younger members within their households (siblings plus others).

5.3 Status of employment and education

In this section we shall examine whether education increases the prospects of better quality of employment and implies higher chances of non-farm self-employment and regular salaried employment in contrast to casual employment. Distributions of labour force in various status of employment have been presented in Tables 5.3.1 and 5.3.2. These data make it clear that years of education is positively associated with the per cent of labour force in salaried employment. Percentage of labour force in this category rises from 6 to 33 for those with no education to those with SSC and above education (for 15-25 years age group). The rise is steepest between 6-9 years of education and SSC+, the percentages being 17 and 33 respectively. Table 5.3.2 shows that the relationship holds for both male and female labour force, although for young male labour force, the positive relationship is clearer while for the young female labour it is not continuous.

Section 6: Conclusions and Policy Implications

1. Children from poor households have lower school enrolment rate, both in primary (8 to 12 years) and secondary age (13-18 years) groups. The differences are higher when one considers SSC completion. Regression results on 'whether one is studying' shows that the coefficient of poverty is negative and significant. Equations also show strong intergenerational impact of education. Studies (Mahajan 2005, WB 2002, Rahman 2004) have demonstrated that lack of education accentuate poverty in the current period. The intergenerational impact of education on children's' schooling will extend the education – poverty link to future generations. Therefore, policies counteracting the negative force of poverty should be urgently pursued. Stipend and other support programmes for school education should therefore, target poorer children. The poorest 20-25% households' children must receive such support for primary education. For secondary level, households in the lower 50 per cent income bracket may get priority. Both boys and girls deserve such support. Before adopting such policies one should examine why past programmes have not been fully successful in eliminating non-enrolment among poor children.

2. The negative impact of poverty on school enrolment acts through two routes: lack of motivation to obtain schooling for children and inability to bear the expenses of education. Lack of motivation has been borne out by high rates of unemployment and low chances of getting salaried jobs especially with education below SSC level. Job creation for young secondary educated persons should be a priority and industrial policy and infrastructure policies in rural areas can be taken up with the medium term perspectives. Plans should be adopted for special skill training courses and informal learning systems to sustain the cognitive skills already obtained by class V to IX educated boys and girls. In addition, one should consider modification of the courses in such ways that even without SSC completion, useful skills and knowledge is acquired which may enable them to engage is self-employment with higher productivity.

3. Poor children's worse performance in terms of school dropouts and SSC completion has been, at least partially due to poorer quality of schools which have higher percentage of poor students. However, this does not appear to be a major phenomenon and the difference between greater or smaller density of poor students is not very large in terms of teacher student ratio and teachers' education. Moreover, distance of high school does not have a significant impact on school enrolment. Therefore, poor students performance can be improved without drastic changes in the location of schools or number and quality of teachers.

4. It has been observed that girls' enrolment in secondary level is higher than the boys'. But girls SSC appearance rate is much lower. This is again due to the lack of prospect of girls' employment. Direct interventions for job creation for secondary educated girls are difficult to conceive, at least in the short run. Indirect policies may be more effective at least in the short run. Policies for motivating girls to complete SSC will involve the following:

   (a) to modify the secondary stipend for girls with provisions of allowances to cover a part of examination fees.

   (b) schools may be given the condition that a certain percentage of secondary stipend holder girls must sit at (and pass!) SSC. This may motivate teachers to provide free coaching for poor students who cannot afford to engage private tutors.

5. Important reasons behind children's dropout are that they do not like school, are not doing well and lack intelligence for school studies. These forces actually imply that school education is not attractive and the children are not learning interesting, useful and relevant things. So the whole learning process should be such that children can do well in studies, move to higher class and find it interesting to be in school. There is no shortcut or easy route to such improvement. These changes are gradual processes and will require well planned long term strategies implemented in phases. Planning for adoption of relevant policies and programmes should begin immediately.

Table 3.2.1
School enrolment among various groups by poverty status

(per cent)

Poverty group	Age 8-12 years		Age 13-18 years		Age 6-10 years	
	Male	Female	Male	Female	Male	Female
Upper class	92.86	100.00	76.47	71.43	78.90	100.00
Upper middle class	92.39	95.29	77.29	81.67	93.50	92.50
Lower middle class	90.94	94.37	59.84	67.65	89.70	89.40
Moderate poor	80.16	89.68	39.72	54.94	75.80	81.80
Extreme poor	64.76	77.36	27.07	43.59	60.60	72.70
Total	81.10	88.97	47.57	59.82	77.80	82.80

Source: Household survey.

Table 3.3.1
Percentage of 16 to 19 year aged persons appearing in SSC during last four years by sex by poverty status

(per cent)

Poverty group	Male	Female
Upper class	52.2	29.4
Upper middle class	51.8	33.3
Lower middle class	31.1	18.4
Moderate poor	14.1	7.5
Extreme poor	6.3	2.6
Total	23.1	12.7

Source: Household survey.

Table 3.3.2
Percentage of SSC candidates with GPA value 2 and higher by poverty status

(per cent)

Poverty group	Male	Female
Upper class	66.7	80.0
Upper middle class	77.3	66.7
Lower middle class	78.0	74.3
Moderate poor	71.9	65.6
Extreme poor	80.0	50.0
Total	76.0	70.4

Source: Household survey.

Table 3.4.1
Determinants of school enrolment of 8 to 12 year old persons

Dependent: Whether studying.

Independent Variables*	Coefficient	Significance
HEAD-SEX	-.42	.69
EPMP	-.85	.00
EPMP 10	.26	.08
AWRAM-PS	.00	.70
LOWN	.00	.10
HEDUC	.10	.00
HWEDUC	.15	.00
ESO-18	-.24	.00
FS 19	.04	.45
OWN SEX 8-12	-.79	.00
VELEC	.12	.40
DFBS	-.01	.30
DFPS	-.01	.54
AVDOPS	-.37	.00
AVDOHS	-.00	.94
CONSTANT	3.56	.00
Sample size	3052	
Per cent of correct predictions	86.34	

* List provided below gives a description of variables in tables 2.1, 2.2, 2.3 and 3.5.

HEAD-SEX	Sex of head (0=Female & 1=Male)
EPMP	Extreme/Moderate poor currently
EPMP 10	Extreme/Moderate poor 10 years ago
AWRAM-PS	Agriculture wage rate of adult male in peak season
LOWN	Land owned
HEDUC	Household head education
HWEDUC	Household heads wife education
ESO-18	Family size (0 – 18 years)
FS 19	Family size (19 + years)
OWN SEX	Child sex: 1=Boy 0=Girl
VELEC	Does the village have electricity?
DFBS	Distance from village (in km.) of nearest Bus Station
DFPS	Distance from village (in km.) of Police Station
AVDOPS	Average distance of primary school
AVDOHS	Average distance of high school
CONSTANT	Child marital status

Table 3.4.2
Determinants of school enrolment of 13 to 17 year old persons

Dependent: Whether studying.

Independent Variables	Coefficient	Significance
HEAD-SEX	-.45	.56
EPMP	-.32	.04
EPMP 10	-.22	.17
AWRAM-PS	-.00	.19
LOWN	.00	.30
HEDUC	.09	.00
HWEDUC	.05	.08
ESO-18	-.08	.05
FS 19	.02	.67
OWN SEX 13-17	-.74	.00
VELEC	.29	.05
DFBS	-.04	.00
DFPS	-.01	.42
AVDOPS	-.22	.10
AVDOHS	-.02	.38
CMSTAT	3.54	.00
CONSTANT	-1.49	.10
Sample size Per cent correct prediction	1669 72.98	

Table 3.4.3
Determinants of SSC completion

Dependent: Whether SSC (among age 18-22 years and completed primary).

Independent Variables	Coefficient	Significance
HEAD-SEX	-5.31	.57
EPMP	-.41	.03
EPMP 10	-.05	.81
AWRAM-PS	.00	.62
LOWN	.00	.00
HEDUC	.07	.00
HWEDUC	.06	.02
ESO-18	-.16	.00
FS 19	.05	.26
OWN SEX	.05	.79
VELEC	.17	.34
DFBS	-.03	.11
DFPS	.04	.00
AVDOPS	-.14	.38
AVDOHS	-.00	.85
CMSTAT	1.24	.00
CONSTANT	2.75	.77
Sample size Per cent correct prediction	1194 73.03	

Table 3.5.1
General notion about children's performance in school by household's poverty status

(per cent)

Poverty group	How did the members do in their studies?				
	Good	Average	Below average	Poor	Total
Upper class	59.50	33.30	7.10	0.00	100.00
Upper middle class	58.30	35.80	4.10	1.80	100.00
Lower middle class	46.80	47.20	4.70	1.30	100.00
Moderate poor	34.70	53.40	9.70	2.10	100.00
Extreme poor	27.80	53.50	15.40	3.50	100.00
Total	39.60	49.90	8.50	2.00	100.00

Source: Household survey.

Table 3.5.2
In the past three years, did any of the students in the household repeat a class?

(per cent)

Poverty group	Yes	No	Total
Upper class	15.40	84.60	100.00
Upper middle class	13.90	86.10	100.00
Lower middle class	15.20	84.80	100.00
Moderate poor	17.20	82.80	100.00
Extreme poor	17.20	82.80	100.00
Total	16.30	83.70	100.00

Source: Household survey.

Table 3.5.3
Average grade point obtained in SSC by poverty status

Poverty group	Gender	Grade point obtained
Upper class	Male	2.50
	Total	2.30
Upper middle class	Male	2.35
	Total	2.35
Lower middle class	Male	2.42
	Female	2.73
	Total	2.43
Moderate poor	Male	2.33
	Female	1.93
	Total	2.31
Extreme poor	Male	2.13
	Female	4.25
	Total	2.28
Total	Male	2.37
	Female	2.61
	Total	2.38

Source: Household survey.

Table 3.5.4
Perception about reasons of poor performance at school by poverty status

(per cent)

Poverty group	Why did they do below average or poorly?							
	Student not intelligent	Unable to afford private tutors	Has to earn	Can not afford books	Poor children are not properly taught	School is too far	Others	Total
Upper class	33.30	0.00	0.00	0.00	0.00	0.00	66.70	100.00
Upper middle class	76.90	7.70	0.00	0.00	0.00	0.00	7.70	100.00
Lower middle class	36.60	22.50	0.00	1.40	2.80	9.90	16.90	100.00
Moderate poor	23.30	40.10	1.20	0.60	4.10	14.00	10.50	100.00
Extreme poor	15.50	54.40	0.00	6.80	4.90	10.70	1.90	100.00
Total	25.70	39.20	0.60	2.50	3.90	11.60	9.70	100.00

Source: Household survey.

Table 3.5.5
Why children drop out from school

Reasons	Per cent of households reporting the most important reason for its child
Does not like to go to school	6.2
Not good in studies	27.2
School too far	3.8
Marriage	11.5
Social problem	2.8
Has to work	5.9
Financial problem	37.0
Others	5.6

Source: Household survey.

Table 3.5.6
Why children repeat classes

(per cent of total, with multiple response)

Poverty group	Bad teachers	Lack of intelligence	Does not study	Does not go to school	Others
Upper class	0.00	20.00	20.00	20.00	40.00
Upper middle class	0.00	34.80	34.80	17.40	26.10
Lower middle class	7.40	29.00	30.90	14.80	29.60
Moderate poor	8.10	32.70	30.00	15.20	26.90
Extreme poor	7.30	37.80	31.70	18.30	15.90
Total	7.30	32.30	30.70	15.80	26.10

Source: Household survey.

Table 3.5.7
Reasons for considering a school as bad by poverty status of household

(per cent of responses)

Reasons	Poverty situation			
	Rich & Upper middle class	Lower middle class	Moderate poor	Extreme poor
Teachers do not stay for full day	55.60	42.60	37.70	38.90
Teachers do not teach well	22.20	53.20	75.40	63.90
Teachers are more interested in private coaching	0.00	2.10	8.70	8.30
Classrooms are in a bad shape	44.40	21.30	15.90	8.30
Stipends are not provided	0.00	6.40	2.90	5.60
Books are not provided	0.00	0.00	4.30	2.80
Too many students in a class	11.10	2.10	1.40	2.80
Others	11.10	10.60	8.70	5.60

Source: Household survey.

Table 4.1
Average education of teachers (three senior most)

PS percentage	Primary School		High School	
	Student per teacher	Number	Student per teacher	Number
10 – 50.00	11.67	6	12.33	15
50.01 – 70.00	11.18	26	12.27	55
70.01 – 90.00	11.28	64	12.28	80
90.01+	11.64	22	12.28	23
Total	11.34	118	12.23	173

Source: School survey.

Table 4.2
Does the school have toilet, by type of school

(per cent)

Type of school	PS percentage	Does the school have its own toilet?				
		No	Common toilet for both boys & girls	Separate toilet for boys & girls	Toilet only for the girls	Total
Primary School	10 – 50.00	.0	100.0	.0	.0	100.0
	50.01 – 70.00	10.7	32.1	53.6	3.6	100.0
	70.01 – 90.00	10.4	25.4	62.7	1.5	100.0
	90.01+	9.1	40.9	50.0	.0	100.0
	Total	9.8	33.3	55.3	1.6	100.0
High School	10 – 50.00	6.7	6.7	80.0	6.7	100.0
	50.01 – 70.00	1.8	9.1	87.3	1.8	100.0
	70.01 – 90.00	1.3	18.8	77.5	2.5	100.0
	90.01+	.0	13.0	87.0	.0	100.0
	Total	1.7	13.9	82.1	2.3	100.0

Source: School survey.

Table 4.3
Is there a separate room for each class? by presentation of poor students

(per cent)

Type of school	PS percentage	Is there a separate room for each class		
		Yes	No	Total
Primary School	10 – 50.00	100.0	.0	100.0
	50.01 – 70.00	71.4	28.6	100.0
	70.01 – 90.00	68.7	31.3	100.0
	90.01+	68.2	31.8	100.0
	Total	70.7	29.3	100.0
High School	10 – 50.00	100.0	.0	100.0
	50.01 – 70.00	96.4	3.6	100.0
	70.01 – 90.00	95.0	5.0	100.0
	90.01+	95.7	4.3	100.0
	Total	96.0	4.0	100.0

Source: School survey.

Table 4.4
Student per teacher by percentage of poor students

(per cent)

Type of School	PS percentage	Student per teacher
Primary School	10 – 50.00	69.0
	50.01 – 70.00	59.6
	70.01 – 90.00	60.5
	90.01+	50.8
	Total	59.0
High School	10 – 50.00	29.0
	50.01 – 70.00	33.8
	70.01 – 90.00	36.0
	90.01+	32.4
	Total	34.2

Source: School survey.

Table 4.5
What is the opinion regarding the standard of your school?

(per cent)

PS percentage	Primary School				
	Very good	Good	Average	Poor	Total
10 – 50.00	16.7	33.3	50.0	.0	100.0
50.01 – 70.00	14.3	46.4	39.3	.0	100.0
70.01 – 90.00	11.9	52.2	34.3	1.5	100.0
90.01+	18.2	36.4	40.9	4.5	100.0
Total	13.8	47.2	37.4	1.6	100.0
PS percentage	**High School**				
10 – 50.00	6.7	73.3	20.0	.0	100.0
50.01 – 70.00	7.3	50.9	40.0	1.8	100.0
70.01 – 90.00	8.8	36.3	52.5	2.5	100.0
90.01+	.0	30.4	60.9	8.7	100.0
Total	6.9	43.3	46.8	2.9	100.0

Source: School survey.

Table 5.1.1
Unemployment rate among youth and adult labour force by education level

(per cent)

Education (years)	Unemployment rate		All
	15-25 years	26-60 years	
0	7.0	1.1	2.5
1 – 5	12.8	1.4	6.4
6 – 9	30.7	1.5	15.6
SSC +	35.4	3.8	13.3
All	19.1	1.6	7.5

Source: Household survey.

Table 5.1.2
Unemployment rate of 15 to 60 year old by Poverty and Educational Level

Poverty Status	Education Level	Male & female
		Unemployment rate (per cent)
Non-poor	0	2.4
	1 – 5	5.5
	6-9	16.3
	S.S.C.+	12.0
	Total	9.4
Poor	0	2.5
	1 – 5	7.1
	6-9	14.6
	S.S.C.+	18.1
	Total	6.1

Source: Household survey.

Table 5.1.3
Youth Unemployment rates by sex and level of education

(per cent)

Education (years)	Male	Female
0	4.0	34.1
1 – 5	8.1	42.3
6 – 9	22.1	65.6
SSC +	30.7	52.9
All	13.2	51.4

Source: Household survey.

Table 5.1.4
How much salary is expected by unemployed youth by poverty status

Status	Average expected salary (Taka)
Rich	5125
Upper middle	3985
Lower middle	3622
Moderate poor	2963
Extreme poor	2450

Source: Household survey.

Table 5.2.1
Underemployment (UDE) rate by Sex and Poverty Status (for 15 to 60 year age group)

(per cent)

Poverty Status	UDE rate		
	Male	Female	All
Non-poor	24.4	32.7	24.7
Poor	25.7	47.4	27.5
Poor & non-poor	25.2	43.5	26.4

Source: Household survey.

Table 5.2.2
Underemployment rate (for age 15 to 60 years group) by sex and education

(per cent)

Education	**UDE rate**		
	Male	**Female**	**All**
0	27.1	49.4	29.0
1-5	26.5	33.3	26.8
6-9	24.0	63.5	25.8
S.S.C.+	16.8	13.6	16.6
All Education	25.1	43.5	26.4

Source: Household survey.

Table 5.2.3
UDE rate for youth labour force by sex and poverty status

(per cent)

Poverty		**15-25 years**	**26-60 years**
Poor	Male	23.1	25.9
	Female	78.3	77.1
	All	37.6	38.4
Non-poor	Male	26.4	23.8
	Female	82.8	80.7
	All	38.1	36.1

Source: Household survey.

Table 5.3.1
Employment Status by age group by education

(per cent of labour force)

Education Level	**All age**		**Age 15 to 25**		**Age 26 to 60**	
	Salaried employee	**Unemployed**	**Salaried employee**	**Unemployed**	**Salaried employee**	**Unemployed**
0	4.0	2.5	6.3	7.0	3.3	1.1
1 – 5	11.8	6.4	12.9	12.8	10.9	1.4
6 – 9	18.4	15.6	16.8	30.7	20.0	1.5
S.S.C +	44.4	13.3	33.5	35.4	49.0	3.8
Total	14.1	7.5	14.5	19.1	13.9	1.6

Source: Household survey.

Table 5.3.1
Employment Status by Education Level by Age

(per cent)

Educational Level (years)	Employment Status (15 – 25 years)						Total
	Self employed in agriculture	Self employed in Non-agriculture	Agri. labour	Non-agri. labour	Salaried employee	Unemployed	
0	20.6	38.5	18.0	9.7	6.3	7.0	100.0
1 – 5	20.2	34.9	10.0	9.1	12.9	12.8	100.0
6 – 9	18.5	26.8	3.6	3.5	16.8	30.7	100.0
SSC +	13.2	16.0	.9	.9	33.5	35.4	100.0
Total	19.0	31.3	9.4	6.7	14.5	19.1	100.0
	(26 – 60 years)						
0	31.2	38.0	18.4	7.9	3.3	1.1	100.0
1 – 5	36.5	38.3	8.3	4.7	10.9	1.4	100.0
6 – 9	36.2	36.5	3.2	2.7	20.0	1.5	100.0
SSC +	18.2	28.3	.5	.1	49.0	3.8	100.0
Total	31.2	36.5	11.4	5.3	13.9	1.6	100.0
	(15 – 60 years)						
0	28.8	38.1	18.3	8.3	4.0	2.5	100.0
1 – 5	29.4	36.8	9.0	6.6	11.8	6.4	100.0
6 – 9	27.6	31.8	3.4	3.1	18.4	15.6	100.0
SSC +	16.7	24.6	.6	.4	44.4	13.3	100.0
Total	27.1	34.7	10.7	5.8	14.1	7.5	100.0

Source: Household survey.

Table 5.3.2
Employment Status by sex by Education Level

(per cent)

Educational Level		Employment Status (15 – 25 years)						Total
		Self employed in agriculture	Self employed in Non-agriculture	Agri. labour	Non-agri. labour	Salaried employee	Unemployed	
Male	0	22.5	38.6	18.9	10.2	5.9	4.0	100.0
	1 – 5	23.0	36.0	11.0	10.3	11.6	8.1	100.0
	6 – 9	22.4	27.7	4.4	4.4	19.0	22.1	100.0
	SSC +	16.7	17.5	1.2	1.2	32.7	30.7	100.0
	Total	22.0	32.4	10.5	7.6	14.2	13.2	100.0
Female	0	3.7	37.8	9.8	4.9	9.8	34.1	100.0
	1 – 5	2.7	27.9	3.6	1.8	21.6	42.3	100.0
	6 – 9	2.5	23.3	.6	.0	8.0	65.6	100.0
	SSC +	.0	10.3	.0	.0	36.8	52.9	100.0
	Total	2.4	25.2	3.1	1.4	16.5	51.4	100.0
(26 – 60 years)								
Male	0	33.0	37.5	18.1	7.6	3.2	.6	100.0
	1 – 5	36.9	38.6	8.2	4.6	10.7	1.1	100.0
	6 – 9	36.9	36.7	3.3	2.7	19.2	1.3	100.0
	SSC +	19.4	29.4	.6	.1	46.8	3.7	100.0
	Total	32.6	36.4	11.2	5.1	13.5	1.3	100.0
Female	0	9.9	44.3	22.2	11.8	5.2	6.6	100.0
	1 – 5	25.0	30.6	11.1	5.6	16.7	11.1	100.0
	6 – 9	4.8	28.6	.0	4.8	52.4	9.5	100.0
	SSC +	.0	10.6	.0	.0	83.0	6.4	100.0
	Total	9.8	36.7	16.1	8.9	21.2	7.3	100.0

Source: Household survey.

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