

# Socioeconomic Impact of BRAC's Non-formal Primary Schools

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# **ABSTRACT**

BRAC started its Non-formal Primary Education (NFPE) programme to improve children's effective participation in their own socio-economic development by increasing literacy, numeracy and required life skills. An impact assessment study was undertaken to gauge the extent to which the NFPE contributed to such changes. Three groups of respondents were chosen for comparison: a) children who graduated from BRAC schools, b) graduates of government primary schools, and c) children who never enrolled in any school. A total of 2,412 persons were selected randomly. The study showed that the government school graduates came from better-off households compared to NFPE graduates or those who had never enrolled in school. These latter two groups were found to be of a similar socioeconomic background. The findings, however, showed similar performance of the government and NFPE school graduates on the socioeconomic impact indicators. Thus, it may be concluded that NFPE school graduates' better performance as measured in this study was essentially the impact of the BRAC Education Programme.

#### INTRODUCTION

The impact of education is multi-faceted. The direct benefits of a sound education include the acquisition of emotional, cognitive and social skills and attitudes, which, in turn contribute to the socioeconomic and cultural development of children. Education prepares future generation for the specific tasks that society expects from them through schools, which impart appropriate ideas, values, and worldviews to their graduates. Education not only equips one with skills and knowledge but also an understanding of his or her own role in today's world and of what is important for that society (Carnoy and Samoff 1990). Therefore, in addition to the explicit functions of transmitting knowledge, schools also perform some implicit functions in transmitting culture, promoting social and political integration, maintaining social control, and serving as an agent of change (Schaefer 1995).

# The BRAC school programme

BRAC is one of the largest non-governmental organizations (NGO) in Bangladesh employing over 32,000 regular staff. It works towards its twin goals of poverty alleviation and empowerment of women in a holistic approach through its three major programmes: rural development, health, and education. BRAC regards education as one most effective tools towards the attainment of human development goals. Many children are, however, deprived of education for various reasons. BRAC, thus, developed its non-formal primary education (NFPE) programme to benefit those children who are excluded by the system.

BRAC Education Programme (BEP) started in 1985 with 22 non-formal schools for children. BRAC has developed two separate school models targeting children of two different age groups. Now the NFPE is a four-year schooling programme aimed at 8-10 years old children who have either never attended any school or have dropped out in the first grade. NFPE provides primary education with the aim to incorporate children into the formal school system. The Basic Education for Older Children (BEOC) is another model focusing on children aged 11-14 years. The BEOC programme lasts three years, but covers five academic years of curriculum. It is assumed that these students are mature enough to be able to grasp the material within a shorter time period. BEOC thus provides basic education to students who are too old to enrol in primary schools.

A typical BRAC school has one room and is run by a single teacher responsible for 33 students (70% being girls) who advance together through the four-year programme. Each school is shut down once a group completes a four-year cycle unless there are at least 30 more eligible children in the community to newly enrol. For lower classes, BRAC develops its own books based broadly on the formal school curriculum prepared by the government's National Curriculum and Textbook Board (NCTB, Ghosh 1999). For class IV and V however, it uses the NCTB books. The aim of the programme is not only to prepare the children for the formal school system, but also to provide quality basic education related to everyday life. In terms of enrolment, BRAC schools prioritize children from poor families whose parents have had little or no schooling. The total number of BRAC school graduates had reached over 2.8 million by the end of 2004 (BRAC 2004).

# The need for impact assessment study

BRAC's NFPE programme complements the government's commitment to education for all. Literature survey has shown that the completion of primary education leads to an improvement in the quality of life. Although no previous comprehensive impact assessment studies on BRAC's NFPE programme exist, findings from numerous studies corroborate the positive impacts of NFPE. Nath and Hadi (2000) found a statistically significant inverse correlation between child labour and years of schooling. Another study showed that about 74% of female BEOC school graduates had their children inoculated at EPI centres, compared to 67% of other adolescent girls. The married BEOC school-enrolled adolescent mothers having children aged less than one year received full doses of TT (Ali et al. 1996). Nath and Chowdhury (1996) found that the life skills knowledge was much higher among BRAC graduates compared to formal school graduates. Other recent studies showed that having completed three years in BRAC schools, a good proportion of children achieved a minimum level of basic education (Nath et al. 1996, 1999). BRAC school students perform better than their counterparts in formal schools, especially regarding knowledge of life skills and writing (Nath et al. 1999). A satisfactory level of general health, hygiene and nutritional knowledge of the BRAC school graduates has also been documented (Nath 1999; Ali et al. 1996a, 1996b). Little effort, however, has been made to explore the effects, if any, of BRAC's NFPE programme on the lives of its learners. As such, an impact assessment study of BRAC's NFPE programme was felt necessary.

# **Objective**

The study aimed to explore the social, economic and empowerment impacts of BRAC's NFPE programme on the lives of its participants and on their households.

#### Defining the terms

The terminology used in the following discussion differentiates between several types of NFPE programme results – outputs, effects and impacts.

#### Output

'Outputs' are the results of NFPE programme inputs in relation to students' performance at different stages of schooling which are gauged through various formative and summative evaluations. For this study, however, 'outputs' are excluded from our investigation of changes in BRAC graduates' lives.

## **Effect**

Effects' are indistinctively distinguished from impacts of NFPE programme in this study as, even though, effects are immediate changes which may not last long (e.g., life skills, knowledge and attitudinal changes in participants' lives). Effects, however, might make a greater contribution towards shaping permanent structural change in NFPE graduates.

# **Impact**

'Impact' refers to lasting structural changes in well-being and comes through economic and empowerment effects of education.

The difference between effects and impacts was, therefore, blurred in writing the results of the study considering the long 9-12 years time that passed after graduating from BRAC schools. This exaggerates the expectation of exposing comparatively lasting changes in participants' lives.

# Schooling and literacy

Imparting literacy is considered one of the most important roles of primary education. Literacy is usually defined by the school authority as the attainment of a certain level of literacy, numeracy, life skills, and attitudes. In this study, students with at least three years of schooling in formal or BRAC primary school are considered as enrolled or literate group.

#### Areas of impact of education

As the impact of education is diffused and ubiquitous, it can be assessed in various ways and at different levels: individual, family, and community. The community level impact of education is difficult to

measure from data collected at any point in time. It was, therefore, decided to investigate the individual and household level impact of education on its participants through an analysis of three separate variables. These are:

- · Social impact,
- Economic impact, and
- Impact on the lives of women.

# Social impact of education

Society is an association of individuals guided by their own conscience, underpinned by guiding principles beneficial to their own well-being and freedom. Changes in the concept of well-being cause changes in these overtime. Changes in the concept of well-being depend upon knowledge, understanding, and the attitude of members of that particular society that again underpin forging a social construct of that particular concept. Knowledge, understanding, attitude and skill are developed and sharpened by the kind of education received (informal, non-formal and formal). Education leads to better healthcare, smaller family norms, greater community and political participation, less income inequity, and greater reduction of absolute poverty (Haq et al. 1998). Increasing use of family planning methods decreases population growth rate which, in turn has an influence on society, for example. This means that individual and household level impacts of education influence society in general. Likewise, the health and immunization, children's education and nutrition, life skills knowledge, and attitudes increase the individual's capacity and, as a result, also that of the society. Therefore, issues, which influence the society directly, are considered social issues. These have indirect influence on the economic and empowerment effects of education and these interlinked issues influence social relations and social institutions. In this study, impacts on the participants and their households such as age of marriage, children's immunization and nutrition, TT during pregnancy, sanitation practice, children's education, socio-political awareness, health, and family planning practices are used to measure social impact of education. Numerous studies corroborate the social impact of education. One such study revealed that parental education was the single most important influence on child survival (Scott et al. 1985).

#### Economic impact of education

A major indication of educational effectiveness is how well education has promoted employment both in formal and informal sectors. The justification for investing in education lies in its potential impacts on earnings over the full life span of educated individuals. Thus, it can be argued that lifetime earnings are a good measure of educational impact.

But it is difficult to predict the expected lifetime earnings of any particular individual or group at a given time. Moreover, due to the changing demand of the labour market, the earning pattern of an individual changes. Therefore, the value of initial earnings as an effective indicator implies that it provides an immediate measure of education's interaction with the labour market (Haddad et al. 1995). With this in mind, this study included respondents from different age groups to gauge wage differentials at different time periods. The increase in the amount of schooling provided by a society does not, in the short run at least, result in a greater volume of economic production and therefore new jobs, or a reduction in the number of unemployed. It may, however, result in an increase in the total number of partially qualified job seekers. The greater the involvement in formal education, the greater the requirement for a complementary investment in other areas to ensure graduates secure gainful employment (Kidd 1974). Education itself cannot eliminate poverty, but by developing vocational skills, contributing to better health, and reducing fertility, it can contribute to economic growth to an increased percentage of the labour force leading to a higher standard of living (Haddad et al. 1995). Therefore, to quantify the economic impact of education, this study included income, expenditure, savings, loan, contribution to household expenditure, and asset accumulation as economic impact indicators. The economic impacts of education influence the social aspects, which are like to bring about changes in women's lives. These social and empowerment effects of education also influence the economic aspect of human life.

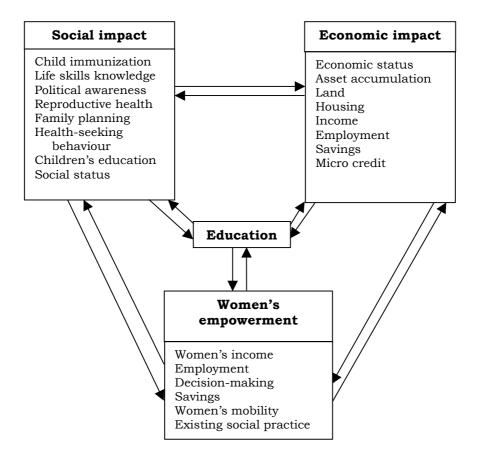
## Impact of education on women's lives

The empowerment effects of education are becoming increasingly evident in many countries as women seize the opportunity to take control over their own lives (UPL 2000). Female education has strong associations with reducing child and maternal mortality and fertility, improving family health, and increasing educational attainment of children. The basic skills of literacy and numeracy are critical starting points from which to raise the status of women in society. This is best achieved through women's participation in the primary education system, which is closely related to child health as measured either by nutrition status or child mortality. Women's education is therefore crucial in breaking the cycle of poverty by protecting the health of children. Through education women gain a greater awareness of health practices, gender issues, increased access to and control over productive and non-productive assets, and are able to take advantage of better opportunities for income generation, resulting in greater self-confidence and increased economic autonomy. In measuring empowerment effects on the participant's lives this study followed the model of Chen and Mahmud's conceptual framework (Chen and Mahamud 1995). The model deals with material, cognitive, relational and perceptual pathways of empowerment. Here asset ownership, control

over resources, autonomy, and contribution to the household expenditure are used as empowerment indicators.

These three areas of impact of education, however, are not independent. Education plays a positive role in increasing child immunization, life skills knowledge, political awareness and participation, acceptance of reproductive healthcare service, family planning practices, and improved health-seeking behaviour of the schooled adults. These social impacts have varied implications on the participants' household in establishing a repository of knowledge, ensuring better health for children and other family members, and minimizing expenses on medication, which, in effect, increase the chances of developing skilled human resources and consequently greater employment and income opportunity. Thus, the social impacts improve economic status of the programme participants. At the same time, it has an empowerment effect on women's lives who gain ground through increasing women's income and employment opportunity, decision making power, women's mobility, etc. Education opens up the chance to reach these three types of changes, which mutually reinforce each other. There is also an interface of impact among these three educational impact areas that again causes them to influence one other, and education in the end. The economic impact of education influences the social aspect of human life and brings changes in women's lives. While social impact work on the economic aspect and women's empowerment these are put forward through a conceptual framework where interactions and interplays are shown by arrows (Figure 1). This framework embraced three major areas of impact to investigate the extent of changes on the participants due to their attainment of BRAC's non-formal primary education.

Figure 1. Conceptual framework of educational impact of NFPE



#### **METHODOLOGY**

#### Study sample

The participants of this study were those who graduated from BRAC schools some years ago. They were expected to have a higher likelihood in entering family, social and the economic process. Three groups of children were chosen for comparison:

- Children who graduated from BRAC schools,
- Graduates of government primary schools, and
- Those who never enrolled.

#### Reasons for taking comparison groups

Even an ineffective school may have a significant influence on the learners due to the association, interaction, and cooperation among the learners. It leads to an obvious difference in the schooled and never enrolled groups that may impair the impact assessment methodology. To prevent the evident difference between literate and never enrolled group this study included the government school enrolled adults.

#### Census in the study area

In its early stages, BRAC Education Programme focused on educationally deprived areas where a huge number of school-aged children remained out of school, the rate of dropout was very high, and guardians were generally declined to send their daughters to school due to poverty and lack of security. As the study intended to explore the impacts on the lives of BRAC school graduates who completed their education on or before 1992, those areas where BRAC Education Programme concentrated initially were selected. Thus, 10 area education offices from seven districts were selected. A census was done in the 131 villages under the 10 team offices where 16-27 years old male and female population were found in the household of BRAC-school completed catchment areas. Thus, we identified 30,340 males and females within the given age range to ascertain sex, years of schooling, and the type of school of the persons living in the areas. Three groups of individuals of similar age and education were listed, and based on the above mentioned three groups, samples were drawn.

#### Variables of interest

# Background variables

- Age and sex of the subjects
- Years of schooling
- Types of schools attended
- Parental education
- Religion

# Economic

- Occupation
- Hours of work
- Involvement in microfinance activities
- Income
- Savings
- Assets (land and non-land)
- Self-perceived yearly food security status

#### Social and educational

- Age at first marriage
- Performance in child immunization
- TT taken during pregnancy
- Sickness management
- Water purification
- Toilet use
- Dowry

#### **Empowerment**

- Decision making
- Participation in social activities
- Women's mobility
- Children's education

### Sampling

Separate samples were drawn from each of the three categories. Estimates are produced for males and females separately. Considering the variable of interest as dichotomous, a sample size of 385 participants for a single estimate was calculated with a precision level of 5% and a 95% confidence limit (Cochran 1977). Thus, a total of 2,412 persons were selected randomly (Table 1).

Table 1. Sample size by stratum

Stratum -	No. of	Total	
Stratum	Male	Female	
NFPE	400	412	812
Government primary schools	400	403	803
Never enrolled	380	417	797
Total	1,180	1,232	2,412

# **Data collection**

A quantitative household survey method was used for data collection through a structured questionnaire. Information was also collected through face to face interviews.

#### **FINDINGS**

#### Socioeconomic background of the respondents

The socioeconomic background of the learners plays a catalytic role in translating learning into a sustainable impact. The higher socioeconomic status usually expedites the process of achieving a higher socioeconomic impact by keeping the environment benign to the achievement. To assess the socioeconomic background of the respondents, retrospective information was collected from their parents or older members of family on parental education and occupation, ownership of arable land, self-assessed economic condition, and their parents' NGO membership status when they (samples) were about 8-10 years of old.

Parental education indicates to the households' social and economic status at a glance. It was found that a higher proportion of parents of government school graduates were educated (mother 21.3%, father 47.4%) compared to those of NFPE graduates (mother 13.1%, father 33.5%) and those who never enrolled in any school (mother 6.5%, father 20.7%) (Table1). This indirectly represents the higher socioeconomic status of the households of government school graduates compared to those of never enrolled and NFPE school graduates.

The amount of arable land is one of the most important and powerful economic indicators in rural areas as most of the people depend upon agriculture. It was found that the households of government school enrolled respondents owned more land (171.3 decimals) compared to that of NFPE graduates (103.1 decimals) and never enrolled respondents' households (96.1 decimals). This indicates the higher economic condition of the house-holds of respondents enrolled in government schools, and equally poorer economic condition of that of the NFPE students and never enrolled sample households when they were 8-10 years old.

The overall economic condition of the respondents' households, when students' age was 8-10 years, was measured through the self-assessed economic status indicated by their parents or older family members. Self-perceived economic condition is equated with overall economic status of the household in terms of income, expenditure and yearly food security of the respective households. Respondents were asked to determine their own economic conditions considering their household income and expenditure over the previous year. Four types of answers were recorded: 1) always in deficit, 2) occasionally in deficit, 3) not in deficit or surplus

i.e. in a break even situation, and 4) in surplus. Table 2 shows that the households of respondents enrolled in government schools were in a better economic condition compared to the NFPE and never enrolled groups. Nearly 63% of the government school enrolled respondents' households were either in a break even situation or surplus compared to 54.3% NFPE and 43.5% percent never enrolled households.

Occupation is another important differential factor that reflects household income as well as social status. It was found that a higher proportion of parents of the never enrolled respondents were day labourers (40.2%) compared to those of the government (22.0%) and NFPE school enrolled respondents (28.6%). In most cases the NGO activities are directed to the poorest of the poor people of the area and the lowest proportion of parents of government school graduates were NGO members and a high portion was from the never enrolled group.

Table 2 shows that the respondents enrolled in government schools came from the economically solvent and socially respected households compared to the NFPE graduates and those never enrolled. NFPE graduates and never enrolled groups were from a more or less equal socioeconomic status. All these factors seem to influence the overall performance of the respondents. It was expected that the government school graduates would show a better impact compared to NFPE graduates and those never enrolled. Therefore, in assessing and understanding impact of BRAC schools these factors should be considered.

Table 2. Socioeconomic background of the respondents by stratum

		Stratum	
Socioeconomic variables	Government	NFPE	Never
			enrolled
Average age of the respondents (year)	22.9	22.4	23.3
% Of educated mother of the respondents	21.3	13.1	6.5
% Of educated father of the respondents	47.4	33.5	20.7
Average arable land of the household at the age of 8-10 years (decimal)	171.3	103.1	96.1
% Of equal and surplus household at the age of 8-10 years	62.8	54.3	43.5
Percentage of day labour parent at their age of 8-10 years	22.0	28.6	40.2
% Of NGO member parents of the respondents at the age of 8-10 years	23.9	31.9	35.5

#### Social impact of education

Education has a compelling effect on the participant's household and consequently on society. Evidence shows that the social impact of education is much higher and pervasive than its economic impact. The versatile social impact of education acts on human life and society through developing human resources, constructing common mores, developing positive attitudes, and practicing and creating a new value system which, in effect, accelerates the pace of development. In general, the social impact of education becomes explicitly evident through improved maternal and child health, health-seeking behaviour, children's schooling, environmental awareness, standard of life and minimal rate of mortality and morbidity. The present study deals with some of these indicators in assessing the overall social impact of the BRAC education programme. These include health knowledge and immunization, reproductive health and family planning, safe delivery and health-seeking behaviour, cleanliness and environmental awareness, nutrition and children's schooling, and the level of socio-political awareness.

# Health and non-formal primary education

#### Child immunization knowledge

In measuring the impact of BRAC's non-formal primary education programme, this study incorporated questions on knowledge and practice of child immunization. One of the most important objectives of education is to persuade a person to get the right information relevant to leading a practical life. Moreover, it is taken for granted that knowledge and information will stand them in good stead. It follows that a knowledge of the prevention of six deadly diseases through immunization is of great importance for protecting lives of rural children. The study shows that those who attended NFPE schools were significantly more knowledgeable than those who attended government primary school or never attended a school (Table 3). It was also found that the greater quotient of samples, irrespective of strata, knew that polio was a preventable disease whereas only a smaller proportion of the sample knew that the whooping cough could be prevented through immunization.

The study reveals that the women of all strata are significantly more informed than their male counterparts (Table A1). The larger proportion of the samples who were knowledgeable on this issue had immunized their children compared to those who had no knowledge (Table A2). Here, having immunization card represents children's immunization performance. The knowledge of starting and ending time is important for child immunization. There was no difference between BRAC school graduates and those who attended government schools but both were significantly better informed than the never enrolled group (Table 4).

Table 3. Percentage of respondents having correct knowledge about prevention of six deadly diseases

	Stratum					cance
Variables	1 NFPE (n=812)	Govern- ment (n=803)	3 Never enrolled (n=797)	1 vs. 2	1 vs. 3	2 vs. 3
Tetanus	50.5	32.3	16.1	p<0.001	p<0.001	p<0.001
Diphtheria	44.5	25.0	5.3	p<0.001	p<0.001	p<0.001
Whopping cough	30.5	24.2	8.2	p<0.01	p<0.001	p<0.001
Polio	80.7	67.6	35.1	p<0.001	p<0.001	p<0.001
Measles	75.0	63.6	31.2	p<0.001	p<0.001	p<0.001
Tuberculosis	63.7	50.7	24.1	p<0.001	p<0.001	p<0.001
A11	16.3	8.5	1.1	p<0.001	p<0.001	p<0.001
Mean	3.4	2.6	1.1	p<0.001	p<0.001	p<0.001

Table 4. Percentage of respondents having correct knowledge about starting and ending age of child immunization by stratum

		Stratum			Level of significance		
Age of immunization	1 NFPE (n=812)	Govern- ment (n=803)	3 Never enrolled (n=797)	1 vs. 2	1 vs. 3	2 vs. 3	
Starting age	44.1	45.2	27.5	ns	p<0.001	p<0.001	
Ending age	66.5	64.0	50.6	ns	p<0.001	p<0.001	

ns=not significant at p=0.05

The female respondents of all strata were significantly better informed as to starting and ending time of immunization than their male counterparts (Table A3). It can be argued that the current socioeconomic status of the respondents might have an effect on some of the impacts measured. To investigate this concept, this study looked at the impact across the three groups by splitting each group into a different economic status category. It was found that the correct knowledge of the different economic groups of BRAC school graduates were significantly higher than the government school enrolled and never enrolled comparison groups (Table 5). A similar trend was found in the case of having correct knowledge about starting age of child immunization by splitting each group into different socioeconomic status (Table A4). All these referred indirectly to the comparatively higher impact of the BRAC Education Programme on its participants compared to the government primary schools with reference to the prevention of diseases and starting age of child immunization.

Table 5. Percentage of respondents having correct knowledge about prevention of polio by economic status and stratum

		Stratum			Level of significance		
Economic status	1	2	3			_	
Deonomic status	NFPE	Govern-	Never	1 vs. 2	1 vs. 3	2 vs. 3	
		ment	enrolled				
Always deficit	65	52	29	ns	p<0.000	p<0.002	
Sometimes deficit	85	77	39	p<0.05	p<0.000	p<0.000	
Equal	79	62	35	p<0.000	p<0.000	p<0.000	
Surplus	85	74	35	p<0.005	p<0.000	p<0.000	

ns=not significant at p=0.05

# Child immunization practice

The presence of an immunization card suggests consciousness regarding immunization. The households without education possess significantly smaller numbers of immunization cards for their eligible children than NFPE graduates' households. The smaller proportion of adults who attended government primary schools had immunization cards (57.9%) for their eligible children compared to NFPE school enrolled households (64.3%). This difference is not statistically significant (Table A5). There was no difference between 2-3 grades completing adults from NFPE and government primary schools having immunization cards, but the difference was sharply evident for 6+ grade achievers (NFPE 65.7% and government school 54.5%; though not statistically significant) (Table A6). The difference in performance of completion rate of child immunization was insignificant between NFPE school graduates and those who attended government primary schools (Table A7).

It is very important to acquire some life skills, knowledge and attitudes through any education system that enable an individual to cope with problems relevant to the real life situation. There are some common problems and issues in Bangladesh faced by the rural poor households in their everyday life. Water purification, prevention of nightblindness, knowledge about legal marriage, AIDS and arsenic awareness, domestic violence, and participation in the political process are among the many examples. Retention of all this knowledge ultimately leads to a positive attitude that persuades individuals to fulfil their own needs as well as to understand the larger goal of the society and shape their own behaviour accordingly. There are some low cast options for purifying the river or pond water or unclean floodwater that the rural poor people may use during crises. Boiling the unclean water, putting bleaching powder or mixing some fitkiri (alum) are common water purification options. This study considers anyone of these options as correct answer. The study reveals that 94.8% of the NFPE and 94.1% of the government primary

school attended adults knew at least one water purification option while 77.2% of the never enrolled adults knew the option (Table A8). The difference between literate and never enrolled adults was significant but insignificant for adults enrolled in NFPE and government primary schools. There was no significant difference in the knowledge of preventing nightblindness among any group. Only less than 10% literate adults (NFPE=9.1% and government=9.7%) and 7.5% never enrolled adults had the knowledge (in all cases difference was not significant) (Table A8). There was no sex difference in any case (Table A9).

AIDS and arsenic awareness have become issues of public health interest in recent times. Data revealed that a significant proportion of literate adults (both NFPE and government school attended) had AIDS and arsenic awareness compared to their never enrolled counterparts (Table 6). A higher proportion of those who attended government primary schools had AIDS awareness than those who attended NFPE schools, and the difference was statistically significant. In both the cases knowledge of male members were significantly higher than their female counterparts irrespective of strata (Table A10).

Table 6. Percentage of respondents having AIDS and arsenic awareness by stratum

Stratum			Level of significance		
1	2	3			
NFPE	Govern-	Never	1 vs. 2	1 vs. 3	2 vs. 3
	ment	enrolled			
63.1	69.4	36.4	p<0.01	p<0.001	p<0.001
38.2	39.7	29.1	ns	p<0.001	p<0.001
	63.1	1 2 NFPE Govern- ment 63.1 69.4	1         2         3           NFPE         Govern- ment         Never enrolled           63.1         69.4         36.4	1 2 3 NFPE Govern- Never 1 vs. 2 ment enrolled 63.1 69.4 36.4 p<0.01	1 2 3 NFPE Govern- Never 1 vs. 2 1 vs. 3 ment enrolled 63.1 69.4 36.4 p<0.01 p<0.001

ns=not significant at p=0.05

# Political awareness

This study attempted to measure political knowledge of the samples as a dummy variable for their participation in the political activities both at the local and national levels. Four questions were asked to assess the political awareness: the voting age of male and female, and name of the present prime minister and the president of the republic. The political awareness of the study samples was not very encouraging. More than 50% of the literate adults could not mention the correct voting age. Less than one-fourth could mention the name of the then president. However, both the literate groups were more knowledgeable than those who never attended any school. The NFPE graduates were significantly less informed than their counterparts in government schools (Table 7).

Table 7. Percentage of respondents having political knowledge by stratum

		Stratum		Leve	Level of significance		
Variables	1	2	3			_	
variables	NFPE	Govern-	Never	1 vs. 2	1 vs. 3	2 vs.3	
		ment	enrolled				
Voting age for Male	39.3	43.3	19.2	Ns	p<0.001	p<0.001	
Voting age for Female	43.7	46.8	23.1	Ns	p<0.001	p<0.001	
Name of the prime minister	91.0	91.4	75.9	Ns	p<0.001	p<0.001	
Name of the president	15.2	24.2	4.4	p<0.001	p<0.001	p<0.001	
All	8.0	12.7	1.6				
Mean	1.9	2.1	1.2	p<0.01	p<0.001	p<0.001	

ns=not significant at p=0.05

More than 90% of the sample population were able to name the prime minister correctly. In all cases, literate adults were well informed compared to the never enrolled group and the difference was highly significant. Male respondents were more informed about the political matters than female respondents of any stratum (Table A11).

#### Reproductive health and family planning

The impact of education in enhancing the demand for healthcare services is well known throughout the world. To measure the impact of NFPE programme on women's health and family planning through increasing demand and practices, several questions were incorporated into the questionnaire. Mothers with 0-12 months old child were inquired about their TT status during the last pregnancy along with other relevant information. It was found that the mothers who attended NFPE schools had taken TT vaccines in higher percentage (90.9%) than both government school enrolled mothers (86.9%) and the mothers who never attended a school (81.1%). This difference was only significant between NFPE and the never enrolled group (Figure 2).

The difference in TT dose completion rate among the pregnant women of the NFPE graduates and comparable households (both government school attended and never enrolled) were insignificant and the gender difference was equally insignificant for all groups (Table A12 and A13). The reason may be that the higher proportion of women of all groups are now willing to pursue the goal of safe motherhood and the difference is automatically being reduced. However, the mother's TT completion rate decreased for those who attended government primary schools and those who never attended any school with their increasing age but exhibited an

inverse relationship for the NFPE school enrolled mothers (Table A14). Moreover, the completion rate of TT was found to be not directly related to the level of education for government school enrolled women. There was, however, a positive and direct relationship between the level of education and the TT completion rate for the women who attended NFPE school (Table A15). One may argue that the increase in attention towards reproductive healthcare may not be the impact of schooling, but rather the result of growing awareness and ability of the population due to varied family planning and microfinance interventions at the village level. However, the segregated data of different economic groups corroborates that the programme participants and comparison groups showed slightly different results (Table 8). Although there is an inclination for the economically well-off respondents to exhibit better results within the same economic status, a higher proportion of BRAC school graduate mothers took tetanus injection compared to government school enrolled and never enrolled comparison groups. This suggests a comparatively more favourable impact of BRAC education programme than government primary schools in this regard.

Figure 2. Percentage of TT coverage during pregnancy

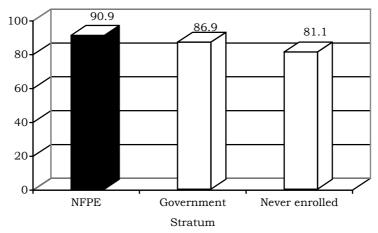


Table 8. Percentage of TT coverage during the last pregnancy by economic status and stratum

Economic condition		Stratum	
Economic condition	NFPE	Government	Never enrolled
Always deficit	91.7	81.8	72.7
Occasionally deficit	88.6	85.3	82.0
Equal	89.3	86.2	79.7
Surplus	97.1	91.4	94.1

In addition to the vaccination, a pregnant mother should be kept under surveillance of a health professional for routine checks during pregnancy. The pregnant women who attended NFPE schools availed less healthcare services (47.7%) than the mothers who attended government primary schools (57.3%). Both the groups showed significantly better performance in this regard than the never enrolled mothers (38.9%). Although, less than 4% of the deliveries had taken place in a hospital or healthcare centre, 40.2% of the NFPE and government primary school attended women were attended by skilled professionals at delivery which was significantly higher than non-educated mothers (28.6%) (Table A16).

#### Family planning practice

Family planning practice is a strong indicator of attitude of the participants and their access to the services that mirror the demand and supply side of the service. The greater percentage of government school attended eligible couples adopted family planning methods compared to both NFPE and never enrolled eligible couples (Table A17). However, a grade-wise comparison shows that NFPE graduates who did not enrol in government primary schools after completion of their BRAC schooling did better (53.6%) than their counterparts from the government primary schools (49.1%), though the difference was not statistically significant (Table A18). There was no significant male female difference in using family planning methods (except for never enrolled couples, p<0.02), but in all cases female users' proportion was higher (Table A19). It indicates that the male aversion to the family planning method has diminished in the case of NFPE and government school attended groups. One of the important effects of education is to create demand for healthcare services and the use of the existing facilities. It was found that the NFPE school enrolled couples collected birth control pills and condoms (from government or NGO operated health centres) at a higher rate (37.4%) than those who attended government primary schools (32.1%) and who never attended a school (26.9%, Table A 20).

## Health-seeking behaviour

Education plays a key role in improving health status by changing health seeking behaviour and reducing morbidity in the household. In collecting information, event of morbidity in the household in the last three months was taken as the reference period and more than one event was also given same importance as a single event for 'yes and no' type of dichotomous answer. A lower percentage of morbidity was found in the case of sample households (61.8%) compared to the government school attended households (65.1%) and never enrolled households (64.9%) though the result was not statistically significant (Table A21). The female samples of all strata were more prone to disease than their male counterparts and the difference was statistically significant (Table A22).

The rate of morbidity sharply declined with the age of the NFPE student households from 70.0% through 52.9% for 16-20 to 25+ age group compared to government (65.8 to 62.8) and never enrolled households (67.0 to 72.2, Table A23). The level of education played a more conducive role in reducing morbidity among the sample households than the government school attended households since at a static age (26+) the increasing level of education decreased morbidity significantly in the households for those who attended NFPE school compared to those who attended government primary schools (Table A24, A25).

The preference for allopathic treatment for all strata was evident, homeopathic treatment being the second option for all cases. There was no significant difference among the sample and comparison groups (Table 26). Cleanliness is a vital issue regarding excreta disposal, hand washing after defecation, and place of defecation, and has vital effects on the overall health situation. Sanitary latrine use is important for better healthcare practice in the household, and government school attended households (both male and female) fared better than those who attended NFPE schools and those who never attended a school. The performance of NFPE households was significantly better than the never enrolled households (Table A27). The practice of hand washing after defecation was more prevalent among the group enrolled in government primary schools than those who attended NFPE schools. However, the adults who attended NFPE schools performed significantly better in this regard than those who never attended a school (Table A28).

#### Social status

One of the objectives of education is to slot the participants in the proper place in society according to their ability. The data show that only a negligible proportion of adults of this age group (16-29 years) actually hold a position in the local union council, club, school, mosque, or any other social organizations. Therefore, it is difficult to measure effect of education on the positioning of the participants in the society. However, it was found that a higher proportion (significant) of educated male adults were members of their local clubs than the never enrolled group but the difference between NFPE and government school attended adults were not significant (Table A29). This study adopted another indirect way of measuring social status of the respondents through their own perception of their position in the society. It was found that a comparatively higher percentage of government school attended adults (47.9%) perceived their higher social status than those who attended NFPE schools (40.4%). In this regard both the educated groups attributed a higher value to their position in the society than the never enrolled group (22.7%, Table A30). The segregated data on the level of education revealed that there was no significant difference between 2 to 3 and 4 to 5 grade completed NFPE and government school attended adults (Table A30).

# Dowry practice

Dowry is one of the social evils, and is practised as a natural by-product of inconsistent inheritance law and a lack of involvement of women in income earning activities. Education is expected to increase women's chances of being involved in income generating activities, and provide better educational prospects for their offspring, as well as help them better manage household activities. Males hold a favourable attitude towards educated wives and all this results in a reduced rate of dowry in the society. It was found that the practice of dowry decreased with the increasing levels of education (Table A31). However, the effect of education on those who attended government schools was greater than NFPE school graduates (the difference was significant, Table A32) in reducing dowry practice but it was not pronounced for NFPE and never enrolled comparison group. The women of all strata were victimized more than their male counterparts by dowries and the difference was only significant for those who attended government schools (Table A33).

# Legal age at marriage

Early marriage is widely practiced in rural areas. It was assumed that the rate of early marriage would be lower among those who attend any education system. The early marriage of women was conspicuous in all groups as only one-fifth of the women were married at the legal age (legal age of marriage for male is 21 years and 18 for female). However, education seems to be making a difference in this regard. It was found that literate male and female were little ahead of abiding by the legal age of marriage compared to the never enrolled group (Table A34 and A35). The difference was significant only between the women attended government schools and never enrolled.

# Children's education and nutrition

For a better understanding of schooling of children in the sample households, information was collected on all children aged 4-15 within the households of all strata. The enrolment status of the children was divided into three types: continuing, dropped out, and never enrolled. More children from the households of those who attended government schools were found continuing their education (71.1%) compared to those who attended NFPE schools (63.0%). This difference was significant. The performance of NFPE attended households was higher than those who never attended a school (52.2%), and the difference was significant (Table A36). However, a comparable percentage of children were continuing their education from NFPE and government school attended households with 2-3 grades of education (Table A37). On the other hand, comparatively more children from households of those who attended NFPE schools (52.8%) were continuing education than the government

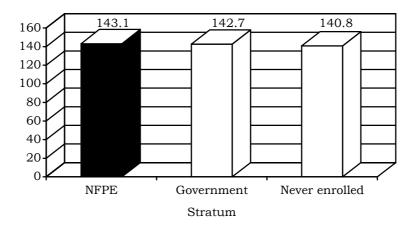
school attended comparison households (46.9%) when land ownership is controlled for. There was no difference in dropout cases between sample and comparison households. A significant amount of children from never enrolled households remained un-enrolled (40.0%) in any educational institutions and this proportion was 29.8% and 22.2% for NFPE and government primary school attended households respectively (Table A38).

Interesting enrolment and dropout patterns for all strata were observed. The percentage of never enrolled children was much higher in the female respondents' households. The dropout rate for the female households were about one-third compared to the respective male households of the same stratum (Table A39). The reason for this may be that most of these female households, who did not enrol their children, were from a comparatively poor background. Findings show that 68.0 % of the NFPE, 48.6% of the government, and 73.6% of the never enrolled female's husbands earned less than Tk. 2,000 per month (Table A40). It was also found that 54.1% of the school going children were continuing their education in the government and non-government primary schools and 19.1% were continuing in the NGO and kindergarten schools (19.1%). Around 6.9% of the children went to religious schools and 19.9% of the children were enrolled in secondary and higher secondary level (Table A41). It was found that a higher proportion of the government primary school enrolled children were coming from the government school attended households (39.9%) compared to the NFPE school attended and never enrolled households (29.8% and 30.4% respectively). However, a higher proportion of the NGO school enrolled children came from the NFPE school attended households. The highest proportion of religious school enrolled children came from the NFPE school completed households (36%) compared to both government and never enrolled comparison households (33.3% and 29.8% respectively). The gender dimension of schooling reveals, in general, that females are more likely to send their children to government primary schools and NGO schools rather than religious schools. Only half of the NFPE school attended females sent their children to the religious schools compared to their male counterparts (Table A42).

#### Nutritional status

To compare nutritional status, the middle upper arm circumference (MUAC) of 6-59 months old children was measured. It was also investigated whether or not children were given colostrums just after their birth. The mean MUAC of the children of literate respondents was found to be higher (the difference was significant; NFPE attended =143.1 and government =142.7 mm) than the children of never enrolled comparison households (140.8 mm, Figure 3). However, the difference between children of NFPE and the government school attended respondents' households was not significant.

Figure 3. Mean MUAC of the children by stratum



## Impact on women's lives

It is widely acknowledged that changes in women's lives can be ensured by developing human resources that increase women's access to, participation in and control over socioeconomic and political activities. Education plays a vital role in raising their awareness level, developing capacity, breaking unequal relationships, involving women in decision making process and ensuring women's participation in the economic interventions. The empowerment effect of education is well documented.

# Women's employment

It was found that most of the study and comparison women were not involved in the income generating activities (IGA). Women's involvement in IGA depended not only on women's education but also on social norms, culture, mores, and attitudes. At the same time, income and employment do not depend solely on the supply of labour force that might be increased though the willingness of women to be involved in economic activity. Rather, it depends mainly on ability of the economy to absorb the work force produced by the education system. Therefore, although the income and employment are influential factors these cannot be used alone in measuring changes in women's lives. The study reveals that only a small proportion of the women were involved in the income earning activities and earned a negligible amount of cash income. However, within this modest proportion of women income earners, NFPE school attended women were involved in a higher proportion (11.9%) than their comparison government school attended adults (5.5%) and those who never attended school (10.8%). The difference was significant between NFPE and government school attended women (Table 9).

Table 9. Percentage of women involved in IGA by land holding status and by stratum

		Stratum		Level of
Land	NFPE	Government	Never	significance
			enrolled	
All land	11.9	5.5		p<0.001
	11.9		10.8	ns
		5.5	10.8	p<0.01
Sample with <50 decimals of land	13.7	6.6		p<0.001
	13.7		11.9	ns
		6.6	11.9	p<0.05

ns=not significant at p=0.05

There is a general tendency of the comparatively well-off households not to involve their female members in income earning activities outside the household as society, in general, looks down on such a thing. Given this fact, household owning <50 decimals of land where need compels the women to be involved in the income earning activities were analyzed separately. Data show that a higher proportion of NFPE school attended women with <50 decimals of land were involved in IGA (13.7%) compared to that of government primary schools (6.6%) and who never attended a school from the same land holding households (11.9%). This difference was significant for government school enrolled women only (Table 6).

Information was collected to gain a clearer picture of women's involvement in IGA in the preceding three months. Women's involvement in the IGA was divided into two categories – 1-20 days and 21-30 days of involvement. No women were found to be involved for more than 30 days. However, 48.3% of the IGA-involved women were engaged in 1-20 days and 51.7% in the 21-30 days in the preceding three months. It was also found that comparable rate of NFPE and never enrolled women (NFPE 41.1%, never enrolled 42.8%) were involved in the IGA (1-20 days) in the preceding three months. This proportion was much lower for those who attended government primary schools (16.1%). However, the proportion of women who were engaged in IGA more than 21 days in the preceding three months were higher in NFPE school attended women (43.3%) compared to never enrolled (35.0% percent) and government school attended women (21.7%, Table 10).

Table 10. Percentage of women involved in IGA in three months time by stratum

Duration of	% O	Total		
involvement	NFPE	Government	Never enrolled	
1-20 days	41.1 (23)	16.1 (9)	42.8 (24)	100 (56)
21-30 days	43.3 (26)	21.7 (13)	35.0 (21)	100 (60)

Figure in parenthesis indicates number

Age-wise involvement of the women in IGA reveals that most women who were involved in IGA were aged between 21-25 years irrespective of strata. There was no difference between NFPE and never enrolled group regarding 1-20 days' involvement. Involvement of the government school attended women were about three times lower than that of the NFPE school attended group. However, this difference was also pronounced between NFPE and never enrolled women who were involved for 21-30 days IGA in the preceding three months (Table 11).

Table 11. Percentage of women involved in IGA by their age, involvement status and stratum

Age of the	Percentage of women involved in IGA						
respondents -	NFI	PΕ	Gover	nment	Never e	enrolled	
in years	1-20 days	21-30 days	1-20 days	21-30 days	1-20 days	21-30 days	
16-20	42.8 (3)	46.2 (6)	28.6 (2)	30.8 (4)	28.6 (2)	23.0 (3)	
21-25	43.6 (17)	46.2 (18)	15.4 (6)	20.5 (8)	41.0 (16)	33.3 (13)	
26+	30.0 (3)	25.0 (2)	10.0 (1)	12.5 (1)	60.0 (6)	62.5 (5)	

Figure in parenthesis indicates number

This finding suggests that only a small amount of NFPE school attended women belonged to the 26+ age group compared to never enrolled women which made the result disconcerting for this age group.

#### Income effect of education on women's lives

Income is a strong determinant in changing women's lives. The study samples were included who completed their education before January 1992. The monthly income of the study sample was very low, Tk. 657 for NFPE, Tk. 707 for government primary school enrolled women, and Tk. 603 for the never enrolled group. There was no significant difference between the groups regarding income of the respondents. However, it was

found that the income of NFPE school attended women tends to increase with increasing age (Tk. 545 to 1,190 from 16 to 26+ years age group), which diverged from the results from other two comparison groups (Table 12). It forecasts better economic prospects for the NFPE school attended women compared to the government school attended and never enrolled women.

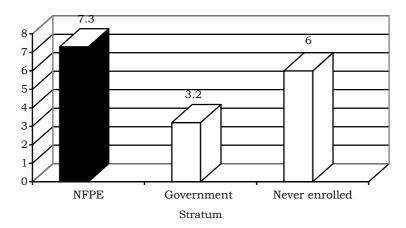
Table 12. Mean monthly income of the women by age and stratum

Age level		Stratum	
	NFPE	Government	Never enrolled
16+20 years	545 (9)	325 (6)	880 (5)
21-25 years	610 (35)	917 (14)	600 (29)
26+ years	1,190 (5)	380 (2)	488 (11)

Figure in parenthesis indicates number

To assess economic performance and to compare it with the comparison households, three days cash income was collected. It was found that a higher proportion of the women who attended NFPE schools earned cash income in the last three days (7.3%) compared to the government school attended women (3.2%; the difference is significant) though the difference was not equally distinct between NFPE and never enrolled women (Figure 4).

Figure 4. Proportion of women earning cash income



In the Bangladeshi context, a little education usually leads to better marriage prospects for girls. Husband's income and involvement in the IGA was taken as a proxy indicator for good nuptials. Data revealed that husbands of the never enrolled women were the most disadvantaged group from an employment perspective. It was found that 15.4% of the never enrolled women's husbands were self-employed, which is lower than that of NFPE (17.4%) and government school attended women's husbands (26.7%). Comparatively higher proportions of the never enrolled women's husbands were engaged in manual labour (Table A43). To gain a better understanding of the changes in the employment situation over time, the employment of husbands of the women over 26 years of age was taken into account with 2-3 grades of education. Data revealed that although there was a large difference between the employment situations of government and NFPE school attended women's husband, this was diminished for older groups, since an equal percentage of the both strata were self-employed (Table A44). In addition, the percentage of wage-employed husbands was lower for the 26+ NFPE school-enrolled women's husband and a considerable number acted as service holders.

## Decision-making power

Decision-making regarding household spending can be used as an indicator of women empowerment. The data showed that 66.7%, 61.2%, and 50.0% of the women who never enrolled, who attended NFPE schools, and who attended government primary schools respectively spent their own incomes, and the difference between each group was insignificant (Table A45). However, the decision-making power of the NFPE school attended women on their own income was higher for 16-20 and 26+ years age group than women who never attended any school. This seems to suggest that decision-making power becomes more pronounced as time goes on (Table 13).

Table 13. Percentage of women make decision on spending their own income by age group and stratum

Stratum	Age group (year)		
	16-20	21-25	26+
NFPE	66.7 (6)	60.0 (21)	60.0 (3)
Government	50.0 (3)	50.0 (7)	50.0 (1)
Never enrolled	20.0 (1)	79.3 (23)	54.5 (6)

Figure in parenthesis indicates number

#### Savings of the women

The NFPE school attended women saved more (Tk. 964) than those who never enrolled (Tk. 599). The government school attended women saved highest amount of money (Tk. 1580) and the difference between government and never enrolled group was significant (Table A45). The

difference was statistically significant between the women those who attended NFPE (Tk. 581) and government primary schools (Tk. 300) with 2-3 years of education and 26+ years of age (Table A45).

# Control over non-land assets

There were only a few women who possessed household non-land assets (poultry and livestock, productive and non-productive). The right to sell the assets without prior permission from other family members is regarded as control. The NFPE and government school attended women had slightly higher control over household poultry and livestock than those who never attended a school, but this difference was not significant for government and NFPE schools attended adults (Table 14).

# Ownership of productive and non-productive assets

An insignificant number of women own productive assets, but none of them had control over those assets. However, the women could sell some portion of their own non-productive assets. The mean difference of the value of these assets varied for three strata. The government school attended women's ability to sell non-productive assets was higher (mean value significant) than those who attended NFPE school. It was not-significant for those who never attended any school (Table 14).

Table 14. Women's control over household non-land assets (mean value)

	Stratum		Level of	
Type of assets	NFPE	Government	Never enrolled	significance
Poultry and livestock	151	148		ns
	151		105	p<0.05
		148	105	p<0.05
Non-productive assets	113	268		p<0.05
	113		213	ns
		268	213	ns

ns=not significant at p=0.05

# Age of marriage, attitudes and empowerment

The age of marriage is an important factor for the rural adolescents in terms of reproductive health as the early marriage usually corresponds to greater health risks of adolescent girls. Education effectively acts to raise the age of marriage towards the legal age of marriage (18 years for girls). The study revealed that the age of marriage of the literate adolescent girls was high compared to those of never enrolled adolescent girls and the difference was statistically significant. There was no significant difference between NFPE and government school attended adolescents (Table A46).

# Women's mobility

A positive attitude towards women's mobility is important to bring about changes in women's lives. A higher proportion of literate women expressed their support in favour of women's mobility but this difference was not significant between women who attended NFPE schools and who attended government primary schools (Table A46). The women who never enrolled were less often users of safe latrine facilities compared to the government and NFPE school attended women and the percentage of users was higher among those who attended government primary schools (Table A46).

# Marriage without dowry

Dowry is a social sore that ruins most rural families through the sale of productive and non-productive assets of the households. It also creates psychological pressure on parents. It is assumed that education will help reduce this malpractice by increasing awareness in the society. It was apparent from the study that the education system could make only a negligible difference in the lives of women in the pursuit of dowry-free marriage. There was, however, a significant difference between NFPE and government school attended women's marriage without dowry. Only 16.5% of the 2-3 grade completed NFPE women's marriage required a dowry compared to 33.7% of the women who completed the same grade from government primary schools. No difference was found for those who completed 6+ grades (Table 15).

Table 15. Percentage of women without dowry at marriage by level of education

	Level of education		
	3 grades	4-5 grades	6+ grades
NFPE	16.5	32.2	38.8
Government	33.7	29.6	39.8

An encouraging finding was that for both the NFPE and government school enrolled groups the dowry-free marriage was increasing with the increasing levels of education.

# **Economic impact of NFPE**

It is difficult to measure the economic impact of education by collecting data at a particular point in time. The impact is a long-term process that depends upon a variety of factors and requires a reasonable amount of time to be attained. The impact of education is so versatile that it may bias towards some impact indicators, while others may remain

unaffected. The results of this section should therefore take these factors into account. A further tracer study can be more appropriate for making such inferences regarding economic impact of education.

#### Economic status

Self-perceived economic condition is equated to overall economic wellbeing of the household in terms of income, expenditure and yearly food security of the respective households. Respondents were asked to determine their own economic conditions considering their household income and expenditure in the preceding year. Four types of answers were recorded namely: 1) always in deficit, 2) occasionally in deficit, 3) in neither deficit not surplus, and 4) in surplus. It was revealed that the overall economic condition of the never enrolled group was comparatively worse-off than literate groups. Little more than 48% of these households were either always or occasionally in deficit compared to 33.9% of the NFPE and 28.5% of the government school attended literate households 16). The government school attended households significantly better-off households in this self-perceived economic status (Table A47). However, this self-perceived economic well-being status is neither exhaustive nor definitive in explaining the impact of education. This indicator should instead be used in conjunction with other impact indicators.

Table 16. Percentage of households by self-perceived food security status and stratum

	Stratum			
Economic condition	NFPE	Government school	Never enrolled	
	n=812	n=803	n=797	
Always deficit	9.1	7.7	17.6	
Occasionally deficit	24.8	20.8	30.5	
Equal	43.2	42.7	38.5	
Surplus	22.9	28.8	13.4	
Total	100.0	100.0	100.0	

There was no gender difference in self perceived economic condition between the two literate groups but the difference was explicit in the never enrolled group where female respondents were more vulnerable (52.3% deficit households) than males (43.4% deficit household) (Table A48). Although NFPE school attended households were economically less well-off than the government school attended households the difference was not significant when compared with households having <50 decimals of land. However, the difference still remains significant for those who never enrolled in any school with both the literate groups (Table A47). There was no significant difference in any stratum pertaining to the

economic condition of male and female households owning <50 decimals of land (Table A49).

#### Asset accumulation

#### Land

Land, especially arable land, is a prime asset, the ownership of which can indicate the economic condition of a rural household. The government school attended group belonged to a higher socioeconomic section of the society according to this land indicator. Their mean amount of arable land was 96.3 decimal for them compared to those who attended NFPE schools (two third, 62.6) and those who never attended a school (one-third, 32.6). The mean amount of homestead land was also higher for this group (Table 17). Female households possessed fewer amounts of homestead and arable land than their male counterparts (Table A50).

Table 17. Mean amount of homestead and arable land (decimal) of the respondents by stratum

		Stratum		Level of significance			
Land type	NFPE 1	Government 2	Never enrolled 3	1 vs. 2	1vs. 3	2 vs. 3	
Homestead land	1 13.3	15.8	9.5	p<0.01	p<0.001	p<0.001	
Arable land	62.6	96.3	32.6	p<0.001	p<0.001	p<0.001	

Households' own patrimonial land, despite its influence, cannot be used as a measure of performance. Instead, contribution to land purchases is preferred as a differential performance indicator. There are limitations for using this indicator in measuring the impact of BRAC schools, since the respondents are young adults who have not had much time to accumulate such wealth. On the other hand, purchasing homestead land depends upon the specific need of the household and should not be equated to other household's need. Considering all these constraints, two strategies were adopted to look into the matter: the amount and value of land purchased after the respondent started earning income, and their contribution in purchasing the land. It was found that a larger number of never enrolled respondents (25) contributed towards purchasing homestead land compared to those who attended the NFPE (16) and government primary schools (14). However, mean value of the contribution was higher for those who attended NFPE schools (Tk. 8,875) compared to those who attended government primary schools (Tk. 4,250) and who never attended a school (Tk. 7,764, Table A51). Contribution of NFPE graduates was higher in purchasing arable land compared to the comparison households. However, in monetary terms the result was higher for those who never attended school but the difference was not

statistically significant. Males were the predominant contributors to this asset accumulation process (Table A52).

Those who attended NFPE schools contributed little more in purchasing homestead land compared to those who attended government schools (both in number and amount of money) though the result was not statistically significant (Table A53). Those who attended government schools contributed a higher amount towards purchasing arable land compared to those who attended NFPE schools (for 2-3 and 4-5 grade completers) though this result was also not statistically significant (Table A54). Nine NFPE school graduates with 6+ grades of education contributed in purchasing arable land while none of the government school attended adults contributed any amount in this regard.

#### Housing

The mean value of houses was higher for those who attended government primary schools (17,287) compared to those who attended NFPE schools (14,039) and those who never enrolled in any school (7,200) (Table A55). The difference was significant for each group. The contribution of those who attended government schools was higher (8,522) in constructing and renovating house than other two groups (NFPE 5,819, never enrolled group 4,439) (Table A 56). The difference was significant in all cases. The female respondent's contribution in constructing and renovating houses was lower than their male counterparts. Usually the contribution of female respond-ents of never enrolled group was lowest (Table A57). However, the contri-bution of only NFPE school completed (2-3 grade) respondents was slightly higher (Tk. 5,115) than government school attended adults (Tk. 4,430) for the same grade although the result was not statistically significant (Table A58).

# Productive and non-productive assets

The pattern of accumulation of productive and non-productive assets reflects the mobility of the household members towards greater economic independence. The value of household non-land assets (including poultry and livestock, productive and non-productive assets) was significantly higher for NFPE school graduates compared to never enrolled group, although it was significantly lower than those who attended government primary schools (Table A59). The female households of all strata had a lower amount of poultry and livestock assets compared to their male counterparts and the level of significance was higher for never enrolled comparison households (Table A60). The value of productive asset was, however, also lowest for those who never enrolled in any school compared to those who attended NFPE and government primary schools (the difference is significant). The value of non-productive asset was higher for those who attended government primary schools than those who attended NFPE schools.

## Micro credit and NFPE

Involvement in micro credit activities corresponds to respondents' attitude and ability to engage in self-employment and income earning activities. The average loan size was significantly higher for the literate households compared to never enrolled household, while government primary school graduates were in a better condition than both the NFPE and never enrolled groups (Table 18). Again female respondents, who attended government schools, took larger loans compared to those who attended NFPE schools and those who never attended school (difference was significant). This difference was insignificant for NFPE school enrolled male households. No age-wise pattern of taking loan was emerged (Table A61).

Table 18. Mean amount of loan received by the respondents' households by stratum and sex

Sex		Stratum		Level of significance			
SCX	NFPE	Government	Never enrolled	1 vs. 2	1 vs. 3	2 vs. 3	
Both	8913 (845)	11460 (706)	5773 (853)	p<0.001	p<0.001	p<0.001	
Male	8115 (251)	10118 (220)	5387 (220)	ns	p<0.001	p<0.001	
Female	8611 (242)	11981 (219)	5575 (256)	P<0.005	p<0.001	p<0.001	

Figure in parenthesis indicates number ns=not significant at p=0.05

The source of loan is an important indicator of effective financial management. Borrowing larger amount from the local moneylenders is considered endangering for the well-being due to high rate of interest. On the other hand, there are alternative institutional sources of loan provided by different NGOs to protect potential borrowers from exploitative Mohajoni practices (loan from the local moneylenders). The study revealed that most of the households borrowed from institutional sources irrespective of literacy levels, but a slightly higher percentage of the never enrolled group borrowed from the Mohajons. (Table A62). No significant gender difference was found in taking institutional loans (Table A63). Use of loan is another important aspect of effective financial management of the household. The productive use of loans can promise a positive household economic vibrancy while ineffectual use might bode ill for the household's welfare. Little more than 40% of all the households used loan for unproductive purposes. The performance of never enrolled households was comparatively worse in this regard since 55.8% of the households used their loan for productive purposes compared to those who attended the government schools (61.9%) and those who attended NFPE schools (60.1%) (Table A64). There was no significant gender variation in loan use, but women from NFPE and the never enrolled group did slightly better than the women who attended government primary schools (Table A 65).

#### Employment, income and NFPE

The economic impact of education depends upon participants' involvement in income earning activities. About half of the study samples of each group were not involved in income earning activities; the proportion was higher in the government school attended comparison group and lowest in the never enrolled group (Table A66). The data also showed that the female participation in the income earning activities was higher for NFPE school attended women. The difference was significant for women who attended government primary schools (Table 19). Possible explanations for this could be the inability of the job market to absorb such 'quasi-educated' people and the fact that those who were in dire need engaged themselves without considering the payment.

Table 19. Involvement of the respondents in the IGA by stratum and sex

	% o	f IGA involve	ment	Level of significance			
Sex	NFPE	Govern- ment	Never enrolled	1 vs. 2	1 vs. 3	2 vs. 3	
Male	88.5 (354)	86.2 (345)	95.3 (362)	ns	p<0.001	p<0.001	
Female	11.9 (49)	5.5 (22)	10.8 (45)	p<0.001	Ns	p<0.001	

ns=not significant at p=0.05

Figure in parenthesis indicates number

The average monthly income of the respondents who were involved in IGA was not very encouraging. The mean income per month was less than Tk. 2,000 for all groups. The government school enrolled respondents earned higher monthly income (Tk. 1,900) compared to those who attended NFPE schools (Tk. 1,689) and those who never enrolled in any school, (Tk. 1,532) but the difference was not significant between the NFPE and the never enrolled group (Table A67). The monthly income was, however, slightly higher (though not statistically significant) for NFPE school graduates who never attended any school after completing NFPE school and who had <50 decimals of land than those who attended government primary schools (Table A68). NFPE school graduates, who did not attend any educational institution after BRAC schooling, with same economic background earned higher income than those who had similar level of education from government primary schools. However, no significant difference was found in the income level between NFPE and government school attended respondents. The level of income was increased with age for both groups. (Table A 69). This is an indicator of the maturity effect of education, but this was not a differential factor between these two education systems.

## Material well-being and NFPE

Income is not the only indicator of a household's well-being. Keeping this in mind, the study tried to incorporate both an understanding of the situation of three groups and a grasp of the impact of education on the basis of these differences. Data show that 85.5% of the NFPE school graduates who earn \le Tk. 1,900 per month were the deficit households and this percentage was 84.3% and 90.3% for the government and never enrolled households respectively (Table A70). The obverse reality is that 80.1% of the NFPE school enrolled adults, 77.5% of the government school enrolled adults, and 81.4% of the never enrolled adults from surplus economic status were earning ≤ Tk. 1,900 per month (Table A70). If we look at it from family background point of view, it also gives somewhat similar picture as the never enrolled group with <50 decimals of land earn lowest amount (14.4% earn more than Tk. 1,900 per month) compared to those who attended government (24.5%) and NFPE schools (19.0%) from the same land holding households (Table A71). Although in both cases the government school attended learners did slightly well than those who attended NFPE schools but percentage of earning more than Tk. 1,900 per month was higher among those who completed 3 years of NFPE schooling (17.7%) compared to those who completed same years of schooling from government primary schools (13.6%) (Table A72). This suggests to the positive income effects on the NFPE school graduates compared to those who never enrolled in any school.

#### **Occupation**

In Bangladesh, the type of occupation engaged in usually corresponds to the well-being status of the households. In this study, IGA was categorised into four major divisions: agriculture, service, business and day labourer (where day labourers are deemed to be the lowest rung of the hierarchy in terms of income and social status). It was found that a significant proportion of never enrolled households were involved in labour selling activities (74.9% both) compared to those who attended government (49.7%) and NFPE schools (57.9%) (Table A73). A higher percentage of women of all strata were involved in labour selling activities, though their involvement in IGA was minimal (Table A74). Although a higher proportion of the never enrolled adults were employed in various activities, the unemployed suffered due to their comparatively lower amount of savings, household expenditure, and lower values of land and non-land assets (Table A75).

# Impact of landholding status on the material well-being

The households were categorized into two groups based on their land holdings: less than and more than 50 decimals of land holding households. The households with <50 decimals of land irrespective of government and NFPE schools attended were lower grade achievers on

average (NFPE 4.9, government 5.04) compared to >50 decimals of landholding households (NFPE 5.85, government 6.2) (Table A76). There was no significant difference in increasing income with the increment of landholding. The value of household assets was significantly higher for the larger landholding households. All the samples who have <50 decimals of land, irrespective of literacy status, contributed a larger amount of money towards renovating their houses compared to >50 decimals of landholding adults. This probably occurred due to the fact that less costly huts tend to need to be repaired more frequently than comparatively costly tin-sheds or pucca buildings; the poorer sampled population thus had to contribute more than the well-off. The value of non-land assets of the literate groups was higher than the never enrolled group. However, the inequality among the illiterate adults was more pronounced than that among the literate group in terms of landholding status (Table A76). A similar pattern was found in the case of household expenditure. This suggests that the literate households brought more equity into the strata (government and NFPE group) while inequity increased in adults who had never enrolled in any educational institutions.

There was no difference between the wage-employed and self-employed literate adults in terms of their age and level of education. The mean income and savings of the self-employed and wage-employed NFPE graduates were slightly higher than the never enrolled group. Both groups were earning and saving less than those who attended government schools and this difference was statistically significant. The higher economic status of the government primary school attended group is reflected through higher value of their houses and higher amount of household expenditure (Table A77).

# Well-being and productive and unproductive use of loan

It was found that comparatively young samples' households used loans for unproductive purposes. This was equally applicable for literacy rates; more high-grade completers used their loans for productive purposes than the lower grade achievers of both groups. Usually the unproductive loan users were lower income earners, saved less and also took smaller loans (Table A78).

## Age and well-being status of the respondents

The respondents were categorized into 16-20 years, 21-25 years, and 26+ year's age group to gauge the age-level influence on well-being status. In most cases (with little variation in land and savings for NFPE and those who attended government primary schools), income, savings value of purchased land (both homestead and arable), and respondent's contribution in purchasing land was higher for the higher age group of all strata. However, the rate of increment was, in most cases, in favour of

the NFPE school graduates compared to those who attended government primary schools and those who never attended a school (Table A79). The age-wise landholding pattern of NFPE households revealed that the amount of land fell with the increased age of the participants. This indicates either that the programme was sticking to the target category in terms of economic condition at the preliminary stage, or the NFPE enrolled adults lost their land over time. Table A79 shows that this group spent a larger amount of money on purchasing both homestead and arable land which confirmed their general trend towards achieving higher economic growth rates compared to adults who attended government primary schools and those who never enrolled in any school. However, the rate of contribution of the NFPE school enrolled adults in constructing or renovating their houses was slightly lower than those who attended government primary schools and the amount was also lower than those two groups.

## Differences in economic activities of the respondents involved in IGA

Results revealed that the income earning age was significantly lower for those who never enrolled in any school compared to the literate groups. However, the average monthly involvement in the income earning activities was lower for those who never enrolled in any school compared to their literate counterparts. This study confirms the adverse employment scenario of all groups as a whole and also comparatively worse-off situation of the never enrolled group. No significant difference was found, however, between NFPE and government school attended groups. A certain proportion of the workers in rural areas were usually provided with food once or twice in a day or some amount of rice in exchange of their work. This is also true for the day labourer. The never enrolled group engaged in work outside home received a greater portion of income (Tk. 2.32) compared to those who attended NFPE (Tk. 1.58) and government primary schools (Tk. 1.63) (Table A80). The income earning age was higher for women who never enrolled in school (Tk. 18.67) compared to those who attended NFPE schools (Tk. 17.94) and those who attended government primary schools (Tk. 17.73). No difference was found between an involvement in IGA, hours of work within and outside households, and income indicators (Table A 81).

## Savings and NFPE

Savings is a good indicator of the economic condition of any household and like other economic indicators it gives a little differential impact of education. The government school attended comparison group had a significantly higher level of savings compared to those who attended NFPE schools and those who had never enrolled in school, but this difference disappeared for those who had same level of education and <50 decimals of land (Table A82).

## **DISCUSSION AND CONCLUSION**

Most developing countries usually face a daunting task in their effort to expand the delivery of educational services due to ever increasing populations and tight government budgets. On the other hand, governments occasionally prohibit, often regulate, and frequently ignore the importance of a non-formal education. In spite of these limitations, BRAC strives to serve the otherwise ignored disadvantaged children of Bangladesh through its NFPE programme. The impact of education, however, is not only dependent on the quality of delivery system, but also upon the corresponding complementary investment in other sectors. Unfortunately, a poor country like Bangladesh can divert only a limited amount of resources towards primary education.

## Social impact of education

Our study has shown that NFPE school graduates acquire better knowledge regarding prevention of six life threatening diseases compared to the comparison groups and females do better than their male counterparts in this regard. It also suggests that the learners often seek aspects of knowledge, which have practical relevance to their lives. The findings showed that women were better informed than men regarding children's immunization. In Bangladeshi society, child rearing is thought of as the sole responsibility of women and it is likely, for this reason, that women of all strata were well informed about it. In reality our male dominated society perpetuates stereotypical notions of women. The role of education is to challenge such stereotypes and promote social justice and gender equality. It must be acknowledged that NFPE schools do try to eliminate such stereotypes and have been successful to certain extent as compared to comparison group.

TT inoculations during pregnancy are important for both mother and her child. NFPE school graduates performed better (as indicated in chapter two) than their literate and illiterate counterpart groups in this regard. The older NFPE school graduates performed better with increasing age, which was not true for government school graduates and those who never enrolled. This suggests that as the time goes on NFPE school graduates are likely to perform better than the comparison groups. There was a direct and positive relationship between TT completion rate and the level of education of those who enrolled in NFPE schools, but this was not found for those who attended government primary schools. A larger proportion of literate mothers were taken to the healthcare centre

for childbirth and attended by skilled and trained birth attendants compared to those who never attended any school. This also implies that there has been a sustainable impact on the lives of the literate adults on the reproductive health and childcare issues.

Morbidity among the members of the NFPE graduate households was found to be less in the preceding three months than the comparison households. A sharp decline of morbidity with increasing age level was found for those who enrolled in the NFPE schools. The level of education played a conducive role in decreasing the rate of morbidity in NFPE school graduates than in both the comparison groups. The NFPE school respondents were more conscious of the benefits of sanitation in using safe latrine and washing their hands after defectation more often than the never enrolled comparison group. The performance of the government school graduates was the best of all. These results show that there was a positive effect of education regarding knowledge and practice of health issues. However, it provided only limited support in favour of the NFPE programme over government primary schools.

The study showed that NFPE graduates as well as government school graduates were able to secure satisfactory positions in society after completing their education. Nevertheless, a higher proportion of the NFPE school graduates enjoyed local club memberships as compared to the never enrolled comparison group. This difference was found to be insignificant in the case of the literate respondent group. The selfperceived social status of the NFPE school graduates confirmed their better social position compared to those who had never enrolled in school, while the difference with government primary school graduates was insignificant. Dowry is a social evil whose pervasiveness was expected to diminish with increasing levels of education. It should be noted that those who attended NFPE schools failed to show a difference in the case of dowry compared to those who never enrolled in school. Early marriage is another serious problem in Bangladesh, which is assumed to become less prevalent with increasing levels of education. The study revealed that the NFPE schools had a differential impact on the lives of its graduates.

The impact of NFPE schools on children's learning was obviously better in comparison with the never enrolled group particularly in terms of enrolment and dropout, but slightly lower than that of government primary school graduates. The male NFPE graduates showed their eagerness to send their children to religious schools but a large number of them did not send their children to schools. Due to the scarcity of resources, a considerable number of female households of all strata were not able to send their children to school. Nevertheless, once admitted they made sincere effort to continue their education compared to their male counterparts. The average MUAC of children, aged 6-59 months,

from the NFPE school attended households was found to be significantly higher than the children of never enrolled comparison households, but insignificant compared to the children of the government school enrolled households. The patterns of these results showed the superior position of the BRAC school graduates' households. The non-formal primary education programme of BRAC has made a substantial impact on the lives of its participants although the difference between NFPE and government primary school enrolled respondents has not been always explicit.

## Impact on women's lives

Involvement in income earning activities can change women's lives. That only qualified members of the sample and comparison women were involved in income earning activities reflected the limitations of using this indicator as a differential factor of women's empowerment for this study. It was found that a higher proportion of the women, who attended NFPE schools, were involved in IGA compared to those who attended government primary schools. Involvement in IGA is important for gaining control over other productive and non-productive assets. The lack of it deters most of the women from having ownership of these assets, which results in disempowerment.

Education and awareness boost women's mobility and their positive attitude towards their outside work. It was found that the NFPE school enrolled women, who had less than 50 decimals of land, were involved in income earning activities in a higher proportion (significantly) than both the literate and never enrolled comparison groups (with same amount of land). However, the income was not equally higher for the NFPE school attended group compared to those who attended government primary schools. The last three days' income of the NFPE school graduate women appeared to be more promising than the government school graduate women and that of those who never enrolled in any school. It is clear from the data that the income effects of NFPE schools were more pronounced in women than income in general. The decision-making power of women, in terms of spending their own income, was found to be slightly higher for never enrolled group. Over time this scenario changed in favour of NFPE school graduate women. A positive attitude towards women's mobility was higher in NFPE school graduate women whereas education failed to bring about dowry-free marriages.

# **Economic impact of NFPE**

Self-assessed economic status of the literate households was higher than the never enrolled group. The contribution to purchase homestead land was found to be slightly higher for the NFPE school attended group (though not statistically significant) than the comparison literate and never enrolled groups, but in purchasing arable land their contribution was lowest. Because a comparatively lower proportion of the NFPE school attended adults were involved in husbandry compared to the other two groups. NFPE schools, therefore, had no impact on the contribution of purchasing arable land. The value of household non-land assets was higher for the literate groups compared to those who never enrolled in school. The government primary school enrolled respondents acquired significantly higher values of assets than NFPE school graduates. The male of all strata had a larger amount of non-land assets compared to their female counterparts. The literate group received a higher amount of institutional credit, whereas the never enrolled group took similar loan amounts from the local moneylenders, but at higher rates of interest. Those who enrolled in school performed efficiently in taking and using loan money. It was revealed that the highest proportion of the never enrolled group was involved in income earning activities, and this proportion was lower for both literate groups. This implies that the impact of education on income, and employment situation was not powerful. This may be on account of a time lag. Further, other employment related factors need to be taken into consideration. One of the most significant changes seemed to be that the gap between poor and rich of the NFPE group dropped sharply compared to the comparison groups.

To summarize the findings of the study, two points should be emphasized.

- 1. The participants of BRAC schools did better than those who never enrolled in any school. This is undoubtedly encouraging. However, one should also be careful in interpreting the data, as the never schooled group is socioeconomically worse-off than the BRAC school graduates.
- 2. In most cases BRAC schools have performed on a par with the government schools. This is one of the most important findings of the study. Students who attend government schools are better-off socioeconomically and consequently they are expected to do better than the BRAC schools (one would expect BRAC schools to do better than non-schooled). However, that the BRAC schools have performed as well as GoB schools is an important finding. This implies that there is a greater potential for BRAC schools to contribute to the socioeconomic development of children and thus to society at large.

# Conclusion

- BRAC students performed better than the never enrolled group, and similar to the government school children. The government school students are economically better-off but the BRAC children were able to catch up with them,
- In most cases males performed better than female respondents,

- Females were found to be more conscious about their health and childcare issues,
- In most cases individual level impacts are more pronounced than household level impacts,
- Knowledge based performance is higher than the attitude and practice-related impacts, and
- Social impacts are more pronounced than economic and empowerment effects.

#### **Recommendations**

- Some social and health related issues of topical interest and current importance (viz. AIDS, arsenic) should be incorporated into the curriculum and students be engaged in meaningful discussion on such topics.
- Classroom teaching should be directed to the understanding and gender biases should be identified and discussed.
- Income and employment-related issues should be included in the curriculum (in the higher grade) to increase the chances of getting vocational mobility and higher income opportunity.

#### Annex

Table A1. Percentage of respondents having correct knowledge of six deadly diseases by sex

					Stratum	1				
Name of		NFPE			overnme	nt	N	Never enrolled		
diseases	Male N=400	Female n =412	P-value	Male n=400	Female n=403	P-value	Male n=380	Female n=417	P-value	
Tetanus	45.5	55.3	p<0.01	29.8	34.7	ns	8.9	22.5	p<0.001	
Diphtheria	40.8	48.1	p<0.05	21.0	29.0	p<0.01	3.4	7.0	ns	
Whooping cough	28.3	32.8	ns	24.0	24.3	ns	5.3	10.8	P<0.01	
Polio	80.8	81.3	ns	66.3	69.0	ns	30.0	39.8	p<0.01	
Measles	69.8	80.1	p<0.001	59.5	67.7	p<0.01	27.1	35.0	p<0.01	
Tuber- culosis	60.3	67.0	p<0.05	45.8	55.6	p<0.01	17.1	30.5	p<0.001	

ns=not significant at p=0.05

Table A2. Percentage of households having knowledge of immunization and immunization card for their 0-23 months children

Name of diseases		Stratum	
rame of diseases	NFPE	Government	Never enrolled
Tetanus	53.8 (56)	30.6 (26)	18.2 (14)
Diphtheria	45.2 (47)	17.6 (15)	5.2 (4)
Hoping cough	31.7 (33)	22.4 (19)	9.1 (7)
Polio	85.6 (89)	64.7 (55)	42.9 (33)
Measles	18.8 (30)	22.7 (20)	17.5 (14)
Tuberculosis	64.4 (67)	51.8 (44)	33.8 (26)

Table A3. Percentage of respondents having knowledge of start and ending age of children's immunization by sex

	Stratum								
Immu- nization	NFPE			(	overnme	nt	Never enrolled		
age	Male n=400	Female n=412	P-value	Male n=400	Female n=403	P-value	Male n=380	Female n=417	P-value
Starting	29.8	58.0	p<0.001	29.5	60.8	p<0.001	60.8	13.9	P<0.001
Ending	56.0	76.7	p<0.001	49.5	78.4	p<0.001	78.4	36.3	p<0.001

Table A4. Percentage of respondents having correct knowledge about starting age of child immunization by their household economic status and stratum

		Stratum		Level of significance			
Economic status	1	1 2 3					
Deolionne statas	NFPE	Govern-	Never	1 vs. 2	1 vs. 3	2 vs. 3	
		ment	enrolled				
Always deficit	32.4	27.4	21.4	ns	ns	ns	
Occasionally deficit	44.3	42.5	27.6	ns	p<0.000	p<0.002	
Equal	45.9	44.6	30.0	ns	p<0.000	p<0.000	
Surplus	45.2	52.8	28.0	ns	p<0.004	p<0.000	

Table A5. Percentage of respondents retain good health practice by stratum

		Stratum		Level of significance			
Health practices	1	2	3				
	NFPE	PE Government Never		1 vs. 2	1 vs. 3	2 vs. 3	
			enrolled				
Wash hand after defecation	78.3 (812)	82.1 (803)	68.3 (797)	p<0.05	p<0.001	p<0.001	
Have immunization card	64.3 (168)	57.9 (152)	51.6 (155)	ns	p<0.05	ns	
Mother taken TT injection	90.9 (150)	86.9 (126)	81.1 (120)	ns	p<0.01	ns	

ns= not significant at p=0.05

Table A6. Percentage of households having immunization card for their eligible children by level of education

Level of	Str	<ul> <li>Level of significance</li> </ul>	
education	NFPE	Government	- Level of significance
3 grade	61.9	60.0	ns
5 grade	64.7	57.3	ns
6+ grade	65.7	54.5	ns

ns= not significant at p=0.05

Table A7. Percentage of child immunization status of the respondent's households by stratum

		Stratum		Level of significance			
Immunization	1	2	3				
status	NFPE	Government	Never	1 vs. 2	1 vs. 3	2 vs. 3	
			enrolled				
Fully immunized	33.9	38.2	25.8	ns	ns	P<0.05	
Partially immunized	43.5	34.2	41.9				
Not immunized	22.6	27.6	26.1	ns	p<0.05	ns	

 $\begin{tabular}{ll} \textbf{Table A8. Percentage of respondents having knowledge of water purification} \\ \textbf{and nightblindness} \end{tabular}$ 

		Stratum	1	Level of significance			
Knowledge	1	2	3			2 vs. 3	
	NFPE	Govern-	Never	1 vs. 2	1 vs. 3		
	n=812	ment n=803	enrolled n=797				
Water purification	94.8	94.1	77.2	ns	p<0.001	p<0.001	
Prevention of nightblindness	9.1	9.7	7.5	ns	ns	ns	

Table A9. Percentage of respondents having knowledge of water purification and nightblindness by sex

		Stratum								
Knowledge	NFPE			G	Government			Never enrolled		
imowieage	Male	Female	P-	Male	Female	P-value	Male	Female	P-value	
	n=400	n=412	value	n=400	n=403		n=380	n=417		
Water	95.0	94.7	ns	94.3	94.0	ns	78.9	75.5	ns	
purification										
Prevention of nightblindness	9.3	9.0	ns	11.8	7.7	p<0.05	8.4	6.7	ns	

Table A10. Percentage of respondents having awareness regarding AIDS and arsenic by sex

					Stratum					
Variables	NFPE				Governme	nt	N	Never enrolled		
	Male	Female	P-value	Male	Female	P-value	Male	Female	P-value	
AIDS awareness	74.5	51.9	p<0.001	82.0	56.8	p<0.001	46.1	26.6	p<.001	
Arsenic awareness	43.0	33.5	p<0.01	45.8	33.7	p<0.001	13.9	8.2	p<.001	

Table A11. Percentage of respondents having political knowledge by sex

Knowledge					Stratur	n			
		NFPE		1	Governm	ent	Never enrolled		
	Male	Female	P-value	Male	Female	P-value	Male	Female	P-value
Voting age for male	54.8	24.3	p<0.001	55.3	31.5	p<0.001	27.9	11.3	p<0.001
Voting age (female)	49.8	37.9	p<.001	54.0	39.7	p<0.001	27.6	18.9	p<0.001
Name of the PM	97.8	84.5	p<0.001	96.0	86.9	p<0.001	89.2	63.8	p<0.001
Name of the resident	24.5	6.1	p<0.001	35.8	12.7	p<0.001	7.6	1.4	p<0.001

Table A12. Percentage of women (respondents) completed TT dose during last pregnant by completion status

mm 1		Stratum	Level of significance			
TT completion status	1 NFPE	2 Government	3 Never 1 vs. 2 1 vs. 3 enrolled		2 vs. 3	
Fully completed	80.0 (120)	83.3 (105)	76.7 (92)	ns	ns	ns
Partially completed	20.0 (30)	16.7 (21)	23.3 (28)	ns	ns	ns

Figure in parenthesis indicates number

Table A13. Percentage of respondents completed TT dose during last pregnancy by sex and completion status

TYT		Percentage of respondents									
TT - completion-		NFPE			vernment		Never enrolled				
status	Male	Female	P-	Male	Female	P-	Male	Female	P-		
status			value			value			value		
Fully completed	88.5 (54)	76.2 (64)	ns	88.9 (40)	79.2 (61)	ns	72.2 (26)	77.8 (63)	ns		
Partially completed	11.5 (7)	23.8 (20)		11.1 (5)	20.8 (16)		27.8 (10)	22.2 (18)			

ns=not significant at p=0.05

Figure in parenthesis indicates number

Table A14. Percentage of TT dose completed women during pregnancy by age and stratum

	Fu	ılly complet	ed	Partially completed			
Stratum		Age (year)		Age (year)			
	16-20	21-25	26+	16-20	21-25	26+	
NFPE	73.1 (19)	83.8 (88)	78.6 (11)	26.9 (7)	16.2 (17)	21.4 (3)	
Government	85.7 (18)	83.0 (73)	76.9 (10)	14.3 (3)	17.0 (15)	23.1 (3)	
Never enrolled	84.2 (16)	75.0 (54)	73.1 (19)	15.8 (3)	25.0 (18)	26.9 (7)	

Figure in parenthesis indicates number

Table A15. Women's TT completion status during last pregnancy by their level of education

	Fu	lly complet	ed	Partially completed				
Stratum	Leve	el of educat	ion	Level of education				
	2-3 grades	4-5 grade	6+ grades	2-3 grades	4-5 grades	6+ grades		
NFPE	73.7 (28)	82.9 (63)	87.1 (27)	26.3 (10)	17.1 (13)	12.9 (4)		
Govern- ment	88.6 (31)	80.7 (46)	80.3 (24)	11.4 (4)	19.3 (11)	20.0 (6)		

Table A16. Percentage of women taken reproductive health care services by stratum

		Stratum		Level of significance			
Services	1	2	3				
	NFPE	Govern-	Never	1 vs. 2	1 vs. 3	2 vs. 3	
		ment	enrolled				
Taken health-care during pregnancy	47.7 (205)	57.3 (256)	38.9 (208)	p<0.01	p<0.01	p<0.001	
Last delivery at Health centre	3.5 (15)	3.0 (30)	3.0 (16)	ns	ns	ns	
Last delivery at home	96.5 (415)	97.0 (416)	97.0 (518)	ns	ns	ns	
Last delivery attended by doctors or skill persons	40.2 (173)	40.2 (179)	28.6 (153)	ns	p<0.001	p<0.001	
Last delivery attended by doctors or skill persons of those who have <0.50 acres of land	37.4	41.2	27.8	ns	p<0.01	p<0.001	

Figure in parenthesis indicates number

Table A17. Percentage of eligible couple practiced family planning methods

		Stratu	Level of significance			
Variables	1 NFPE	2 Government	3 Never enrolled	1 vs. 2	1 vs. 3	2 vs. 3
Use family planning methods	52.8	61.0	48.8	p<0.01	ns	p<0.001

Table A18. Percentage of eligible couple use family planning methods by level of education

Level of	Str	ratum	Level of significance
education	NFPE	Government	
2-3 grade	53.6	49.1	ns
4-5 grade	52.0	64.4	p<.01
6+ grade	53.2	64.7	p<.01

ns= not significant at p=0.05

Table A19. Percentage of eligible couple use family planning methods by sex

Variables		Stratum								
	NFPE				Government			Never enrolled		
	Male	Female	P-value	Male	Female	P-value	Male	Female	P-value	
Use family planning methods	51.1	53.7	ns	58.4	62.3	ns	42.9	52.5	p<.05	

Table A20. Percentage of respondents having access to the family planning services by stratum

Methods		Stratum								
	NI	FPE	Gover	nment	Never enrolled					
	*Service	Shops	Service	Shops	Service	Shops				
Birth control pill	37.4 (73)	62.6 (122)	32.1 (17)	67.9 (36)	26.9 (63)	71.1 (171)				
Condom	12.5 (2)	87.5 (14)	-	100 (4)	4.5 (1)	95.2 (21)				

<sup>\*</sup> Service includes FWV/FWA/FPI, NGO clinic and health workers.

Figure in parenthesis indicates number

Table A21. Percentage of respondent's sickness and treatment status in the last three months

		Stratum	Level of significance				
Morbidity and treatment	1	2	3	1 770 0	1 vs. 3	0 170 2	
	NFPE	Government	Never	1 VS. Z	1 vs. 3	2 vs. 3	
Sick in three months	61.8	65.1	64.9	ns	ns	ns	
Treatment taken	95.5	97.8	97.0	ns	ns	ns	

ns=not significant at p=0.05

Table A22. Percentage of respondent's sickness and treatment status in the last three months by sex

					Stratur	n			
Morbidity	Morbidity NFPE			Government			Never enrolled		
	Male	Female	P-value	Male	Female	P-value	Male	Female	P-value
Sick in the last month	52.2	67.2	p<0.00	58.4	68.4	p<0.01	60.1	68.0	p<0.05

Table A23. Percentage of respondent's households experienced sickness in the last three months by age and stratum

Age of the		Stratum					
respondents	NFPE	Government	Never enrolled				
16-20 years	70.0 (63)	65.8 (50)	67.0 (63)				
21-25 years	61.6 (253)	65.8 (242)	61.1 (251)				
26+ years	52.9 (37)	62.8 (76)	72.2 (120)				

Figure in parenthesis indicates number

Table A24. Percentage of household suffered from sickness by level of education and stratum

Level of education	Stratu	ım
Level of education	NFPE	Government
2-3 grades	60.0 (105)	65.8 (87)
4-5 grades	67.6 (186)	66.7 (38)
6+ grades	50.0 (62)	58.4 (87)

Table A25. Percentage of household with morbidity by age and level of education

Age and level of education	Strat	um
rige and level of education	NFPE	Government
Age 26+ and 2-3 grades	55.6 (15)	58.8 (20)
Age 26+ and 4-5 grades	53.3 (16)	64.5 (40)
Age 26+ and 6+ grades	46.2 (6)	64.0 (16)

Figure in parenthesis indicates number

Table A26. Percentage of household received treatment by type and stratum

	Stratum				
Type of treatment	NFPE	Government	Never enrolled		
Allopathic	86.0	88.4	87.6		
Homeopathic	9.3	9.9	9.5		
Traditional healers/faith healers	3.5	1.4	2.9		
No treatment	1.2	-	-		

Table A27. Percentage of respondent use safe latrine and wash hand after defecation by stratum and sex

Variables	Stratum			Level of significance		
Variables	1 NFPE	2 Govern- ment	3 Never enrolled	1 vs. 2	1 vs. 3	2 vs. 3
Safe latrine used by male	39.7	54.8	28.7	p<0.001	p<0.001	p<0.001
Safe latrine used by female	40.0	55.3	29.5	p<0.001	p<0.001	p<0.001
Wash hand after defecation	78.3	82.1	68.3	p<0.05	p<0.001	p<0.001

Table A28. Percentage of respondent wash hand after defecation by stratum and  $\ensuremath{\mathsf{sex}}$ 

Variables	Percentage of respondents								
	NFPE			G	Government			Never enrolled	
	Male n=400	Female n=412	_			P-value		Female n=417	P-value
Hand washed after defecation	77.5	79.1	ns	79.3	84.9	p<0.05	63.2	72.9	p<0.01

Table A29. Percentage of respondent participated in the local institution and their position in the society by stratum

		Stratum			Level of significance		
Variables	1	2	3				
	NFPE	Govern-	Never	1 vs. 2	1 vs. 3	2 vs. 3	
		ment	enrolled				
Have local club membership	6.9	5.2	1.9	ns	p<0.001	p<0.001	
Have social status	40.4	47.9	22.7	p<0.01	p<0.001	p<0.001	

Table A30. Percentage of respondent have social status by level of education and stratum

Level of	Str	ratum	Level of
education	NFPE	Government	significance
2-3 grades	27.8	36.4	ns
4-5 grades	40.1	41.3	ns
6+ grades	51.5	63.0	p<0.01

ns=not significant at p=0.05

Table A31. Percentage of the respondents practiced dowry by level of education

Dowry status	Level of education					
Dowly status	No education	2-3 grade	4-5 grade	6+ grade		
Dowry practiced	72.2	70.4	66.7	59.0		
Dowry not practiced	27.8	29.6	33.3	41.0		

Table A32. Percentage of the respondents practiced dowry in their own lives

		Stratum			
Variables	1	2	3	Level of significance	
variables	NFPE	Government	No enrolled	zever or organicance	
	n=394	n=354	n=471		
1 vs. 2	70.2	64.0		p<0.05	
1 vs. 3	70.2	-	72.2	ns	
2 vs. 3		64.0	72.2	p<0.001	

Table A33. Percentage of respondents practiced dowry by sex

Stratum	S	Sex		
	Male	Female	significance	
NFPE school	69.0	70.9	ns	
Government school	57.9	67.0	p<.05	
Never enrolled	71.8	72.5	ns	

Table A34. Percentage of respondents married at their legal age by sex

Sex		Stratum			Level of significance			
	1	2	3					
	NFPE	Govern-	Never	1 vs. 2	1 vs. 3	2 vs. 3		
		ment	enrolled					
Male	58.3	56.2	53.6	ns	ns	ns		
Female	20.3	25.2	17.7	ns	ns	p<0.01		

ns=not significant at p=0.05

Table A35. Percentage of respondent married at legal age by their level of education and stratum

Level of education	Stratum			
	NFPE Government			
2-3 grades	55.2	54.5		
4-5 grades	53.8	55.7		
6+ grades	80.9	77.9		

Table A36. Children's enrolment status by stratum

	Stratum			Level of significance			
Enrolment status	1 NFPE	2 Govern-	3 Never	1 vs. 2	1 vs. 3	2 vs. 3	
		ment	enrolled				
Continuing (%)	63.0	71.1	52.2	p<0.001	p<0.001	p<0.001	
Not continuing (%)	37.0	28.9	47.8				

Table A37. Percentage of households continuing children's education by level of education and landholding

Stratum —	Level of education					
	3 grades	5 grades	6+ grades			
NFPE	51.2 (63)	60.3 (114)	73.5 (86)			
Government	51.2 (45)	77.5 (148)	72.7 (112)			
NFPE < 0.50 acre	52.8	57.0	60.0			
Government < 0.50acre	46.9	68.4	68.7			

Table A38. Percentage of respondents household by children's enrolment status and stratum

Enrolment status		Stratum				
	NFPE	Government	Never enrolled			
Continuing	63.0	71.1	52.2			
Dropped out	7.2	6.7	7.7			
Never enrolled	29.8	22.2	40.0			

Table A39. Percentage of respondents household by children's enrolment status and sex

			Stra	tum			
Enrolment status	NFPE		Gove	Government		Never enrolled	
	Male	Female	Male	Female	Male	Female	
Continuing	69.1	55.2	75.9	66.0	50.3	54.5	
Dropped out	11.1	4.6	9.7	3.8	17.2	4.5	
Never enrolled	16.5	40.2	14.4	30.3	32.5	41.0	

Table A40. Percentage of female household with less than 50 decimals of land and husband's income less than Tk. 2,000 per month

		Stratum	
Variables	NFPE	Government	Never enrolled
Less than 2,000 Tk. income per month	68.0 (66)	48.6 (35)	73.6 (81)
Land less than 50 decimals	66.0 (64)	65.3 (47)	84.5 (93)

Table A41. Enrolment of the children by stratum and type of schools

		Stratum				
Type of school	NFPE Government		Never enrolled	Total		
Government/non- Government schools	29.8	39.9	30.4	658 (54.1)		
NGO schools	39.1	34.8	26.2	233 (19.1)		
Religious schools	36.9	33.3	29.8	84 (6.9)		
High schools	33.9	49.6	16.5	242 (19.9)		
	400	491	326	1,217 (100)		

Table A42. Enrolment status of the children by stratum and by sex

	Stratum					
Type of school	NFPE		Government		Never enrolled	
	Male	Female	Male	Female	Male	Female
Government/non- government schools	42.9	49.6	39.6	58.2	50.0	67.9
NGO schools	15.1	28.3	12.5	19.0	16.2	20.0
Religious schools	10.3	5.5	6.9	5.2	8.1	5.7
High schools	31.7	16.5	41.0	17.6	25.7	6.4

Table A43. Percentage of women with husband's involvement in economic activities

Economic activities		Stratum				
Economic activities	NFPE	Government	Never enrolled			
Self employed	17.4 (59)	26.7 (94)	15.4 (59)			
Wage employment	56.3 (191)	44.0 (155)	60.2 (230)			
Service	10.6 (36)	13.6 (48)	4.5 (17)			
Others	15.6 (53)	15.6 (55)	19.9 (76)			

Figure in parenthesis indicates number

Table A44. Percentage of women with husband's involvement in economic activity with 2-3 grades of schooling and >26 years of age

Economic activities —	Stı	ratum
Economic activities —	NFPE	Government
Self employed	25.0 (3)	25.0 (4)
Wage employment	50.0 (6)	56.3 (9)
Service	25.0 (3)	-
Others		18.8 (3)

Figure in parenthesis indicates number

Table A45. Women's status on some empowerment indicators by stratum

		Stratum		Level of significance			
Empowerment indicators	1 NFPE	2 Govern- ment	3 Never enrolled	1 vs. 2	1 vs. 3	2 vs. 3	
% of women made their own decision on spending	61.2 (30)	50.0 (11)	66.7 (30)	ns	ns	ns	
Husband's monthly income	2275	2796	1880	ns	ns	ns	
Average savings of the women	964 (412)	1580 (403)	599 (417)	ns	ns	ns	
Savings (Edu=2-3 grades and age 26+ group)	581 (14)	300 (17)		P<.01	ns	ns	

ns=not significant at p=0.05

Table A46. Percentage of empowered women with different empowerment indicators by stratum

		Stratum		Level of significance		
Empowerment indicators	1 NFPE	2 Govern- ment	3 Never enrolled	1 vs. 2	1 vs. 3	2. vs 3
Age >18 years at marriage	28.4 (117)	29.3 (118)	19.9 (82)	ns	P<0.001	P<0.001
Necessity of women's mobility	63.1 (260)	61.5 (248)	54.0 (225)	ns	P<0.001	P<0.05
Marriage without dowry	29.1 (258)	33.0 (248)	27.5 (288)	ns	ns	ns
% of women with NGO activity	30.1 (124)	24.1 (97)	33.1 (138)	P<0.05	ns	P<0.05
Use of safe latrine by women	40.0 (325)	55.3 (444)	29.5 (235)	P<0.001	P<0.001	P<0.001

ns=not significant at p=0.05 Figure in parenthesis indicates number

 $\begin{tabular}{ll} \textbf{Table A47. Percentage of deficit households by land and by stratum} \end{tabular}$ 

		Stratum		
Variables	1 NFPE n=812	2 Government school n=803	3 Never enrolled n=797	Level of significance
All land:				
1 vs. 2	33.9	28.5	-	P<0.05
1 vs. 3	33.9	-	48.1	P<0.001
2 vs. 3		28.5	48.1	P<0.001
<50 decimals of land:	N=202	N=158	N=326	
1 vs. 2	39.1	34.6	-	ns
1 vs. 3	39.1	-	51.7	P<0.001
2 vs. 3		34.6	51.7	P<0.001

Table A48. Self-perceived economic condition of the respondents by stratum and sex

			Str	atum		
Economic condition	NI	FPE	Gover	nment	Never e	enrolled
Economic condition	Male	Female	Male	Female	Male	Female
	N=400	n=412	n=400	n=403	n=380	417
Always deficit	7.5	10.6	6.8	8.7	14.7	20.2
Occasionally deficit	26.2	23.3	21.5	20.1	28.7	32.1
Equal	40.5	45.9	43.2	42.2	40.3	36.9
Surplus	25.8	20.2	28.5	29.0	16.3	10.8
Total	100	100	100	100	100	100

Table A49. Economic condition of the respondents with less than 50 decimal of land by stratum and sex

		Stratum					
Economic condition	NI	FPE	Gover	nment	Never e	Never enrolled	
Deonomic condition -	Male n=246	Female n=271	Male n=229	Female n=228	Male n=275	Female n=336	
Always deficit	10.2	13.7	10.9	11.4	17.5	20.8	
Occasionally deficit	28.0	26.2	22.7	24.1	30.2	34.2	
Equal	41.9	45.0	47.6	44.3	38.2	34.9	
Surplus	19.9	15.1	18.8	20.2	14.2	10.1	
Total	100	100	100	100	100	100	

Table A50. Mean amount of homestead and arable land by stratum and by sex

		Stratum					
Land type	NFPE		Government		Never enrolled		
	Male	Female	Male	Female	Male	Female	
	n=395	n=394	n=396	n=393	n=360	n=398	
Homestead land	14.8	11.8	17.0	14.7	11.0	8.18	
Arable land	72.7	52.4	103.2	89.4	42.7	23.5	

Table A51. Respondent's contribution in purchasing homestead and arable land by stratum

Land type	Stratum			Level of significance		
Land type	NFPE	Government	Never enrolled	1 vs. 2	1 vs. 3	2 vs. 3
Homestead land	8875 (16)	4250 (14)	7764 (25)	ns	ns	ns
Arable land	12326 (23)	13227 (22)	17857 (14)	ns	ns	ns

Figure in parenthesis indicates number

Table A52. Respondent's contribution (in taka) in purchasing homestead and arable land by sex

			Strati	um		
Land type	NFPE		Government		Never enrolled	
	Male	Female	Male	Female	Male	Female
Homestead land	8250 (12)	10753 (4)	5950 (10)	.00 (4)	8525 (16)	6411
Arable land	416 (12)	.00 (4)	3200 (10)	25 (4)	1937 (16)	555 (9)

Table A53. Respondent's contribution in purchasing homestead land by level of education

I1 - C - 1+i		Level of	
Level of education -	NFPE	Government school	significance
2-3 grades of schooling	4571 (7)	3875 (4)	ns
4-5 grades of schooling	12223 (9)	6285 (7)	ns

Figure in parenthesis indicates number

Table A54. Respondent's contribution in purchasing arable land by level of education and stratum

I and of advantion	Stra	Stratum			
Level of education -	NFPE	Government	significance		
2-3 grades of schooling	9142 (7)	12545 (11)	ns		
4-5 grades of schooling	17142 (7)	19125 (8)	ns		
6+ grades of education	11055 (9)	-	ns		

ns=not significant at p=0.05

Table A55. Mean value of the house of the respondents by stratum

	Stratum				
NFPE	Government	Never enrolled	significance		
14039	17287	-	P<0.001		
14039	-	7200	P<0.001		
	17287	7200	P<0.001		

Table A56. Contribution of the respondents in constructing house by stratum

	Stratum		
NFPE n=175	Government n=139	Never school n=256	Level of significance
5819	8522	-	P<0.01
5819	-	4439	P<0.05
	8522	4439	P<0.001

Table A57. Respondent's contribution (in taka) in building house by stratum and sex

Sex		Stratum			Level of significance		
Sex	NFPE	Government	Never enrolled	1 vs. 2	1 vs. 3	2 vs. 3	
Male	6511 (109)	9638 (93)	5036 (117)	p<0.05	ns	p<0.001	
Female	4165 (23)	5369 (13)	2663 (41)	ns	p<0.05	p<0.01	

Figure in parenthesis indicates number

Table A58. Respondent's contribution in building house by level of education and stratum

Level of	Stratum		<ul> <li>Level of significance</li> </ul>
education	NFPE	Government	— Level of significance
2-3 grades	5115 (46)	4430 (23)	ns
4-5 grades	5308 (59)	9514 (61)	P<0.01
6+ grades	9518 (27)	12905 (22)	ns

ns=not significant at p=0.05

Figure in parenthesis indicates number

Table A59. Mean value of household non-land assets by stratum

Non-land assets		Stratum		Leve	l of signifi	cance
	NFPE	Government	Never enrolled	1 vs. 2	1 vs. 3	2 vs. 3
Poultry and livestock	3598 (1145)	4210 (1077)	2663 (918)	P<0.05	P<0.001	P<0.001
Productive assets	2017 (3042)	2320 (3594)	1256 (2288)	P<0. 01	P<0.001	P<0.001
Non-productive assets	5034 (232)	11125 (233)	3498 (207)	P<0.05	ns	P<0.01

Figure in parenthesis indicates number

Table A60. Mean value of household non-land assets by sex and stratum

Non-land					Stratum	L			
assets		NFPE			Governme	ent	N	ever enro	olled
	Male	Female	P-value	Male	Female	P-value	Male	Female	P-value
Poultry and livestock	1418 (44)	507 (123)	P<0.05	1692 (52)	291 (137)	P<0.01	1620 (88)	266 (134)	P<0.001
Productive assets	896 (329)	1407 (283)	ns	731 (319)	1847 (264)	P<0.001	603 (256)	696 (272)	ns
Non- productive assets	1416 (26)	1900 (2)	ns	4167 (28)	1550 (2)	ns	1997 (33)	1567 (4)	ns

ns=not significant at p=0.05

Table A61. Mean amount of loan by age and by stratum

Age of the	Stratum			Lev	zel of signifi	cance
respondents	NFPE	Government	Never enrolled	1 vs. 2	1 vs. 3	2 vs. 3
16-20	9596 (107)	8038 (79)	4502 (84)	ns	p<0.05	p<0.05
21-25	8049 (334)	12352 (289)	5374 (288)	p<0.01	p<0.001	p<0.000
26+	7801 (52)	9080 (71)	6600 (104)	ns	ns	ns

Figure in parenthesis indicates number

Table A62. Source of loan received by the households by stratum

Source of loan		Stratum		Level	of signif	icance
Source of loan	NFPE	Government	Never enrolled	1 vs. 2	1 vs. 3	2 vs. 3
Institutional source	93.8 (793)	93.1 (657)	91.7 (782)	ns	ns	ns
Local money lenders	6.2 (52)	6.9 (49)	8.3 (71)	ns	ns	ns
Total	100	100	100			

ns=not significant at p=0.05

Figure in parenthesis indicates number

Table A63. Source of received loan by sex

			Str	atum		
Sources of loan	N]	FPE	Gove	rnment	Never e	nrolled
	Male	Female	Male	Female	Male	Female
Institutional source	90	94.2	91.8	90.9	90.0	90.6
Local money lenders	10	5.8	8.2	9.1	10.0	9.4
Total	100	100	100	100	100	100

Table A64. Productive and non-productive use of loan by stratum

Use of loan		Stratum		Level	of signifi	cance
	NFPE	Government	Never enrolled	1 vs. 2	1 vs. 3	2 vs. 3
Productive use	60.1 (508)	61.9 (437)	55.8 (476)	ns	ns	p<0.01
Unproductive use	39.9 (337)	38.1 (269)	44.2 (377)	ns	ns	p<0.01
Total	100 (845)	100 (706)	100 (853)			

ns=not significance at p<0.05

Figure in parenthesis indicates number

Table A65. Productive and unproductive use of loan by sex

			Strat	um		
Type of use	NF	PE	Gover	nment	Never e	enrolled
	Male	Female	Male	Female	Male	Female
Productive use	56.6 (142)	65.3 (158)	62.7 (138)	60.3 (132)	51.8 (114)	55.9 (143)
Unproductive	43.4 (251)	34.7 (84)	37.3 (82)	39.7 (87)	48.2 (106)	44.1 (113)
Total	100	100	100	100	100	100

Table 66. Involvement of the respondents in the income earning activities by stratum

		Stratum		Level o	of signif	icance
IGA involvement	NFPE	Govern- ment	Never enrolled	1 vs. 2	1 vs. 3	2 vs. 3
Involved in IGA	49.6 (403)	45.7 (367)	51.1 (407)	ns	ns	ns
Not involved in IGA	50.4 (409)	54.3 (436)	48.9 (390)	ns	ns	ns
Total	100	100	100			

Figure in parenthesis indicates number

Table A67. Average monthly income of the respondent those involved in IGA by stratum

	Stratum		
NFPE n=403	Government n=367	Never enrolled n=407	Level of significance
1689	1900		p<0.05
1689	-	1532	ns
	1900	1532	p<0.001

ns=not significance at p<0.05

Table A68. Mean income of the respondent those who involved in IGA with less than 50 decimals of land and 2-3 grades schooling by stratum

Respondent's background —	Stra	atum	Level of	
	NFPE	Government	significant	
Less than 50 dec. of land and 3 years of schooling	1666 (80)	1503 (50)	ns	

ns=not significance at p<0.05

Figure in parenthesis indicates number

Table A69. Mean income of the respondents by their age, education and stratum

Respondent's background	Stra	Stratum		
Respondent's background	NFPE	Government	significance	
Age 16-20 and education 2-3 grade	1741 (20)	1373 (12)	ns	
Age 21-25 and education 4-5 grade	1566 (111)	1781 (104)	ns	
Age 26+ and education 6+ grade	1863 (13)	1845 (20)	ns	

ns=not significant

Table A70. Percentage of households with monthly equal or less than Tk. 1,900 and more than Tk. 1,900 by self perceived economic status of the respondent's households

NFPE		Government		Never enrolled		To	Monthly	
Deficit	Surplus	Deficit	Surplus	Deficit	Surplus	Deficit	Surplus	income
85.5	80.1	84.3	77.5	90.3	81.4	88.1	80.1	≤1,900
14.5	19.9	15.7	22.5	9.7	18.6	11.9	19.9	>1,900

Table A71. Percentage of household with less than 50 decimals of land and monthly income equal or less than Tk.1,900 and more than Tk. 1,900

Level of monthly	Stratum							
income in taka	NFPE	Government	Never enrolled					
≤1,900	81.0	75.5	85.6					
>1,900	19.0	24.5	14.4					

Table A72. Percentage of households with less than 50 decimals of land and 3 years of schooling by monthly income

Level of income per month	Stra	tum
in taka	NFPE	Government
≤1,900	82.3 (135)	86.4 (102)
>1,900	17.7 (29)	13.6 (16)

Figure in parenthesis indicates number

Table A73. Percentage of the respondents employed in different IGA activities by stratum and sex

		Stratum											
Type of IGA	NFPE			(	Government			Never enrolled					
	Male	Female	Total	Male	Female	Total	Male	Female	Total				
Agriculture	17.6	4.3	16.8	19.9	-	19.1	13.2	15.4	13.3				
Service	7.8	43.5	10.0	11.4	35.7	12.3	4.1	11.5	4.6				
Business	16.2	-	15.3	19.0	14.3	18.9	7.4	3.8	7.2				
Day labour	58.3	52.2	57.9	49.7	50.0	49.7	75.3	69.2	74.9				

Table A74. Percentage of respondents currently involved in IGA activities by stratum and sex

		Stratum		Level of significance				
Sex	NFPE Government		Never enrolled	1 vs. 2	1 vs. 3	2 vs. 3		
Male	93.0	93.5	96.6	ns	p<0.05	p<0.05		
Female	7.5	5.7	6.2	ns	ns	ns		
Both	49.6	49.4	49.3	ns	ns	ns		

Table A75. Mean difference in performance of well being of employed and not employed respondents by stratum

		Employed			Not employed	1
	NFPE	Government	Never	NFPE	Government	Never
Age year	22.64	22.94	23.79	22.15	22.89	22.85***
Education	5.52	5.87	-	4.97	5.22	-
Income	1,647	1,726	1,548	45	30	41
Saving	1,722	4,348**	1,591	893	1,271	565
Value of home	15,600*	20,017**	7,700	15,313	19,222**	7,323
R's contribution in H. building	1,782	2,263	2,313	217	172	232
Household expenditure	15,770*	20,289**	8,572	12,577*	18,390**	6,841
Value of non-land assets	1,022	1,115	942	1,102*	1,297	577

Table A76. Mean differences of performance of well-being of NFPE and comparison group by the present land holding status

	Land 1	less than 50 de	cimals	More	than 50 deci	mals
	NFPE	Government	Never	NFPE	Government	Never
Age year	22.5	22.9	23.3	22.2	22.9	23.3
Education (grade)	4.9	5.04	-	5.85	6.2	-
Income (Tk.)	872	980	780	782	721	794
Saving (Tk.)	1,262	2,168	1,101	1,373	3,618	973
Value of home	10,479	13,318	6,228	2,4496	27,896	11,932
Respondent's contribution in building home (Tk.)	1,258	1,685	1,389	527	575	828
Value of non-land assets (Tk.)	805	1,027	561	1,523	1,445	1,403
HH consumption (Tk.)	664	734	511	1088	1128	809

denotes statistical significance of NFPE vs. never enrolled group
 denotes statistical significance of government vs. NFPE and never enrolled groups

<sup>\*\*\*</sup> denotes statistical significance of never enrolled vs. NFPE and Government groups

Table A77. Mean differences of performance of well-being of self and wage employed respondents by stratum

		Self employed		7	Wage employe	d
	NFPE	Government	Never	NFPE	Government	Never
Age year	22.82	22.55	23.52	22.74	23.39	23.93
Education	5.25	5.65	-	5.37	5.53	-
Income	1,113	1,595**	1,035	1,971	2,041	1,829
Saving	957	3,536	623	2,147	5,179	2,183
Value of home	10,840*	17,595	5,700	16,955*	19,906	7,924
Respondent's contribution in building home	1,153	1,304	1,830	2,055	2,899	2,400
Value of non-land assets	751	727	671	1,000	1,295	1,055
Household expenditure	11,252	13,043	6150***	16,620	21,890	9341***

<sup>\*</sup> denotes statistical significance of NFPE vs. never enrolled group

Table A78. Mean differences of performance of well-being of productive and unproductive users of loan by stratum

	Prod	uctive use of lo	oan	Unproductive use of loan				
	NFPE	Government	Never	NFPE	Government	Never		
Age in years	22.50	22.90*	23.64*	22.45	22.98*	22.97*		
Education	5.32	5.60	-	5.24	5.28	-		
Income	790	9.53	773	940*	865	700		
Saving	1,531	2,383	1,437	664	2,912	1,100		
Amount of loan received	10,274*	13,099**	6,210	6,863*	8,799**	5,223		

<sup>\*</sup> denotes statistical significance of NFPE vs. never enrolled group

<sup>\*\*</sup> denotes statistical significance of government vs. NFPE and never enrolled groups

<sup>\*\*\*</sup> denotes statistical significance of never enrolled vs. NFPE and Government groups.

 $<sup>^{\</sup>star\star}$  denotes statistical significance of government vs. NFPE and never enrolled groups

Table A79. Mean differences of performance of well-being by age of the respondents and by stratum

		NFPE		G	overnme	ent		Never	
	16-20	21-25	26+	16-20	21-25	26+	16-20	21-25	26+
	years	years	years	years	years	years	years	years	years
Education	5.51	5.25	4.63	5.98	5.60	4.83	-	-	-
Income	670	821	1352	702	866	1062	614	726	1067
Savings	819	1237	2851	1735	3503*	1328	529	1014	1627
Land	98*	68*	76	91	120*	106	35	42	46
Value of purchased household land	374	383	637	841	459	525	174	656	547
Value of purchased arable land	172	1633	6875	264	1856	1897	108	1129	462
Respondents' contribution in household land	128	128	637	.00	154	270	50	214	519
Respondents' contribution in arable land	46	419	625	.00	261	1167	93	357	433
Respondents' contribution in renovating house	383	1105	1600	607	720	3663**	574	1153*	2046

<sup>\*</sup> denotes statistical significance of NFPE vs. never enrolled group

Table A80. Mean difference of economic activities among those who involved in the income earning activities (both)

Variables		Involved in IG	A	Level of significance			
variables	NFPE	Government	Never	1 vs. 2	1 vs. 3	2 vs. 3	
Age of starting income	16.28	16.55	14.97	ns	p<0.001	p<0.001	
Average day of IGA involvement	24.16	24.31	23.43	ns	Ns	p<0.05	
Hour of work at home	1.66	2.15	1.41	ns	Ns	p<0.05	
Hour of work outside	6.37	6.04	6.99	ns	p<0.05	p<0.05	
Cash earning form other place	57	60	54.14	ns	ns	ns	
Earning in kinds	1.58	1.63	2.32	ns	ns	ns	

<sup>\*\*</sup> denotes statistical significance of government vs. NFPE and never enrolled groups

Table A81. Mean difference of economic activities among those who involved in the income earning activities (male)

Variables		Stratum		Leve	l of signif	icance
Variables	NFPE	Government	Never	1 vs. 2	1 vs. 3	2 vs. 3
Age of starting income	16.05	16.48	14.51	ns	p<0.001	p<0.001
Average day of IGA involvement	24.52	24.50	23.71	ns	p<0.05	Ns
Hour of work at home	1.73	2.18	1.41	ns	ns	p<0.001
Hour of work outside	6.74	6.21	7.32	ns	ns	p<.001
Cash earning form other place	63	63.	58	ns	ns	ns
Earning in kinds	1.79	1.74	2.27	ns	ns	ns

Table A82. Saving of the respondents by stratum, land and education

	Stratum			Level of significance		
Variables	1	2	3	1 vs. 2	1 vs. 3	2 vs. 3
	NFPE	Government	Never enrolled			
Savings (both)	1760 (403)	4721 (367)	1634 (407)	p<.05	ns	p<0.01
Land<50 dec. education 3 grades	1549 (80)	2870 (50)		ns		

#### REFERENCES

Ali A, Mahmud SN, Karim F and Chowdhury AMR (1996a). Knowledge and practices of NFPE-AG graduates regarding menstruation. Dhaka: BRAC. (Unpublished)

Ali A, Mahmud SN, Karim F and Chowdhury AMR (1996b). Knowledge of NFPE-AG graduates on reproductive health and nutrition. Dhaka: BRAC. (Unpublished)

BRAC (1997). BRAC annual report 1997. Dhaka: BRAC.

BRAC (2000). BRAC annual report 2000. Dhaka: BRAC.

BRAC (2004). BRAC annual report 2004. Dhaka: BRAC.

Caldwell JC (1985). Education and literacy as factors in health. *In:* Halstead SB, Walsh JA and Warren KS (Editors). Good health at low cost: conference report. New York: Rockefeller Foundation.

Carnoy M and Samoff J (1990). Education and social transition in the third world.

Chowdhury M, Bhuiya A, Vaughan P, Adams A and Mahmud S (1995). Effects of socioeconomic development on health status and human well-being: determining impact and exploring pathways of change: proposal for phase II of the BRAC-ICDDR,B Matlab joint project 1996-2000 AD. Dhaka: BRAC and ICDDR,B. (BRAC-ICDDR,B Joint Research Project Working Paper No. 6)

Cochran WG (1977). Sampling technique. Singapore: John Wiley & Sons.

Ghosh S (1999). BRAC's non-formal education programme and the 53 competencies. Dhaka: *The Daily Star*, 21 June 1999.

Haddad WD, Carnoy M, Rinaldi R and Regal O (1995). Education and development: evidence for new priorities. World Bank.

Haq MU and Haq K (1998). Human development in south Asia 1998: the education challenge. Oxford University Press.

Human development in south Asia 2000: the gender question. Dhaka: University Press Limited, 2000:219p.

Kamal FM (1997). Impact of non-formal primary education on marital age, contraception and health skill: evidence from BRAC villages. Dhaka: BRAC, 4p. (Watch Report No. 30)

Kidd JR (1974). Whilst time is burning: a report on education for development. Ottawa: International Development Research Centre.

Nath SR (2000). Basic competencies of the graduates of BRAC's non-formal schools: levels and trends from 1995 to 1999. Dhaka: BRAC. (Unpublished)

Nath SR (1999). Health knowledge of rural Bangladeshi children: does BRAC's non-formal schools programme have any impact? *Health Edu J* 58(1):26-38.

Nath SR and Chowdhury AMR (1996). Basic competencies of the BRAC school graduates of 1995. Dhaka: BRAC. (Unpublished)

Nath SR and Hadi A (2000). Role of education in reducing child labour: a case from rural Bangladesh. *J Bisoc Sci* 32:301-13.

Nath SR, Imam SR and Chowdhury AMR (1998). Levels of basic competencies of the BRAC school graduates of 1995 and 1997. Dhaka: BRAC. (Unpublished)

Nath SR, Sylva K and Grimes J (1999). Raising basic education levels in rural Bangladesh: the impact of a non-formal education programme. *Int Rev Edu* 45(1):5-26.

Schaefer RT and Lamm RP (1995). Sociology. McGraw Hill Companies.